



Planning Staff Report
Greenville Planning Commission
February 7, 2022
for the February 16, 2022 Public Hearing

Docket Number:	MD 21-1004
Applicant:	DHD Riley, LLC / Drew Schaumber
Property Owner:	Wells Home Loan Servicing, LLC
Property Location:	South of Lowndes Hill Rd at Lockwood Ave, Adjacent to I-385
Tax Map Number:	0195000100201
Acreage:	5.89 acres
Zoning:	RM-3, Single- & Multi-Family Residential District
Proposal:	88-unit multifamily affordable housing development
Staff Recommendation:	Approve with Conditions

Applicable Sections of the City of Greenville Code of Ordinances:

Sec. 2-372, Function, Powers, and Duties of the Planning Commission
Sec. 19-2.1.2, Planning Commission Powers and Duties
Sec. 19-6, Development and Design Standards
Sec. 19-6.8, Design Standards for Multifamily Residential Development

Project Overview:

The proposed project is an 88-unit multifamily affordable housing development located south of Lowndes Hill Rd. at Lockwood Ave. and adjacent to I-385. As a multifamily project, the design and architecture require informal review before the Design Review Board – Urban Panel, and formal approval by the Planning Commission.

Procedural Requirements:

Pre-Application and Development Meetings

Pre-application meetings were held on November 5, 2021 and December 20, 2021, between the applicant and Planning staff about the property and its redevelopment. Discussions centered around general multifamily requirements, vehicular and pedestrian access, use and ownership of the adjacent Right of Way, and setbacks.

An additional meeting was held on January 13, 2022, between the applicant and Planning staff regarding the architectural design and concerns voiced by residents. Discussions focused on massing, improvements to the façade and detailing, and color selection.

Neighborhood Meeting

The applicant presented their project at a neighborhood meeting on December 6, 2021 at the Overbrook Gospel Chapel. Discussions primarily focused on traffic, affordable housing, design concerns, and other

communities the applicant manages in the area. A list of meeting attendees and meeting summary provided by the applicant are included with the Planning Commission packet.

Site Information:

The proposed multifamily affordable housing development is located south of Lowndes Hill Rd. at Lockwood Ave., between an existing multifamily development and I-385.

The subject property is zoned RM-3, Single- & Multi-Family Residential District and is not located within a Neighborhood Revitalization Overlay District or Special Emphasis Neighborhood. The lot is currently vacant. Adjacent land uses are primarily single-family detached residential and multifamily residential.

The GVL2040 Future Land Use designation for the property is "Sub-urban Residential." Land within this designation is largely comprised of single-family homes, with a range of 5-8 housing units per acre. Lots are generally larger than what is in Urban Residential areas and many streets do not have sidewalks or streetlights. Complementary uses customarily found in residential districts, such as community recreation facilities, places of worship, and schools, may be allowed in areas adjacent to Corridors and Urban Nodes.

Staff Analysis:

- Acresage – The subject property is 5.89 acres in size according to the applicant provided survey.
- Zoning – The properties are zoned RM-3, Single- & Multifamily Residential District. Multifamily is a permitted use in the RM-3 district.
- Density – The proposed project consists of 88 units across two multifamily buildings and a separate clubhouse structure. At 5.89 acres, the density is 14.9 units/acre. This is under the RM-3 zoning district maximum of 20 units/acre.
- Height – The standard maximum height in the RM-3 zoning district is 40 feet. Based on the plans provided, the height of each building is 46'-3", exceeding the maximum height by 6'-3". The increase in height is allowable per Section 19-5.2.9(C).
- Parking – A total of 140 surface parking spaces are provided on site. This exceeds the minimum requirement of 132 based on the number of units. No garages are provided. Parking spaces above the minimum requirement are to be designed with Low Impact Design (LID) or fee-in-lieu is provided at the time of site permit.

Staff reviewed the application for compliance with the Land Management Ordinance (LMO), specifically, Section 19-6.8, Design Principles and Standards for Multifamily Residential Development. The analysis on project compliance is as follows:

19-6.8.9. Multifamily Design Standards**(A) Orientation**

- The project site is located behind an existing multifamily lot and does not front any existing public streets. The project proposes construction of a new internal street, Oakley Drive, which the buildings will front.
- The buildings are configured in a manner that activates street frontages and enhances pedestrian activity through orientation of buildings and entrances towards adjacent streets, sidewalks, and open spaces. Buildings along the proposed Oakley Drive are activated by the building front facades and front doors that open towards the street.
- The proposed four-story buildings are configured on the perimeter of the site adjacent to an existing two-story multifamily complex. All proposed buildings have been located away from any adjacent single family detached dwellings. Staff finds that the use of four-story buildings is within an appropriate scale given the grade differential between the adjacent multifamily buildings and the

variation of the roofline to give the appearance of several smaller structures. The scale of the clubhouse, centrally located, is appropriate.

- The buildings are sited to maximize natural ventilation, solar access, and access to views, to the maximum extent practicable.

(B) Setbacks & Height

- The development is located adjacent to two existing multi-family developments, three single-family detached developments, and I-385. The provided plans appear to indicate I-385 as the front for setback purposes.
- The provided site plan indicates the required 25-foot setback along the abutting property line adjacent to single family detached residential, and also sites all proposed buildings away from that portion of the site.
- The remaining setbacks appear to comply with the RM-3 zoning district standards.
- The maximum allowable height within the RM-3 zoning district is 40 feet. The proposed structures are 46'-3" in height, exceeding the standard maximum allowable height. An increase in height is allowable for buildings facing property improved with other than a single-family detached use with an increase in setback at a minimum ratio of one horizontal foot for each two vertical feet of additional building height above the maximum. Given the additional 6'-3" of building height, the 15-foot rear setback should be increased to 18 feet. The provided plans reflect a 20-foot setback, and all proposed buildings satisfy this requirement.

(C) Entrances

- All entrances are to be adequately illuminated and oriented to promote natural surveillance. The provided plans indicate that an exterior light fixture will be provided at the entrances.
- Shared building entrances are pedestrian-scale and are covered. There is an open-air central corridor that provides access to each unit from the building's interior.

(D) Building Facades

- The architecture of the main buildings feature a consistent color pattern and styling across all facades. The clubhouse design is not consistent with the design of the larger buildings, and should be updated for consistency across the entire project.
- The front façade mass is broken into smaller modules and recesses; however, some of the modules and recesses are between 10 and 15 feet in width. Per code requirement, individual building modules, wings, recesses, or projections from the primary façade shall each be a minimum of 15 feet and a maximum of 30 feet in width.
- Most modules, wings, recesses, or bump outs deviate from the primary building facade plane by a distance of at least four feet, but there are some minor projections that vary 12-18 inches. The applicant has requested a variance from the 4-foot projection requirement citing state housing constraints for unit sizing, and noting that if the units increased in size, it would reduce affordability.
- Façade treatment includes changes in wall plane depth, distinct, roofline changes, and distinct changes in texture and color of wall surfaces.
- All building facades incorporate a base, middle, and cap, and visually lighter elements progress from base to cap. Distinctive vertical elements and architectural features such as projecting eaves and shed roofs have been incorporated to add unique definition to the building.

(E) Service Areas

- Garbage collection is provided via a dumpster located within a brick enclosure away from the adjacent residential dwellings.
- HVAC units are shown along the front and rear sides of the buildings and are screened with planting material. Final satisfaction of this requirement will be verified during building plan review.

(F) Roof Form

- The proposed pitched roofs include variation in planes, slope, and features. A hip roof system is used for each building, with each façade featuring a combination of shed roofs and gables that accentuate the main vertical elements.

- All roof vents have been indicated to match the color of the roofing material.

(G) Transparency

- The development appears to fall short of the 20% transparency requirement for street and parking-facing facades; the frontage for each building contains about 15% transparency. The 10% requirement for all other facades has been satisfied.
- With the buffering requirements, it is not anticipated that the windows on side facades will have direct views into the windows of an existing adjacent residential dwelling.
- Windows and doors of proposed dwelling units allow for casual surveillance of the parking and common open space areas.
- Windows appear to complement the rhythm, size, proportion, and trim of adjacent residential buildings.

(H) Materials

- The proposed exteriors include a coordinated color scheme with consistent colors and finishes throughout the development.
- The primary building materials include brick, fiber cement board and batten and lap siding, fiber cement paneling, and architectural shingle roof material. These materials are like those already being used in the immediate area.
- Material changes occur along a horizontal line or where two forms meet. Brick is used for the base of the building, and fiber cement is used for the middle elements.
- There are 6 different combinations of materials and patterns being applied to the façade of the building. Staff recommends reducing the variation slightly to prevent visual clutter, per DRB comments on 2/3/22.

(I) Open Space

- A minimum of 200 square feet of open space per dwelling is required (17,600 sf), one-half of which may be private. Approximately 27,000 sf of open space has been provided, located between and around the buildings and streets.
- An internal sidewalk system connects all open space and connects to the adjacent neighborhood streets.
- The playground and clubhouse are centrally located on the site, and away from all residences to limit adverse impacts on residents.
- Some form of private open space is encouraged for each dwelling with boundaries between private and common open space established by elements such as low walls and landscaping. No balconies or ground-level private spaces are indicated in the plans provided; however, there is a significant amount of common open space provided in the plan.

(J) Parking Lot Location

- Surface parking will be utilized on the site. No garages are proposed.
- Parking areas are located and designed to reduce or eliminate visual and operational impacts on surrounding lands through landscaping and through internal positioning.
- A space has been dedicated for auto maintenance.

(K) Access and Circulation

- The project site has a single vehicular access point from Lowndes Hill Rd. Parking is provided around the private drive. The applicant has provided for a future potential drive connection to the large parcel directly east of the project.
- Three bike rack locations are provided on site for a total of 6 bike racks.
- The development is not located adjacent to a bus route. The closest bus stop is located .57 miles away at Lowndes Hill Rd. and Keith Dr., but there are no sidewalks along Lowndes Hill Rd.

(L) Landscaping and Screening

- The provided plan accounts for a 20-foot landscape buffer and as well as a solid masonry wall per landscape screening and buffer requirements.
- Building foundations are landscaped along the full length of each front and rear façade.

MD 21-1004
The Riley Overbrook

- Stormwater detention basins have been incorporated into the landscape design. Existing grades have dictated the only possible locations for the proposed detention basins.
- Full compliance with landscaping requirements in the zoning ordinance will be verified at the time of site plan permitting.
- Screen plantings have been indicated to conceal ground-level mechanical units.

(M) Exterior Lighting

- A schematic lighting plan was provided; however, lighting levels and fixture choices will need to be evaluated at time of permit to determine compliance.
- Parking lot light poles shall not exceed a maximum height of 15 feet above grade. There were no heights indicated for the City street light fixtures, but the internal fixtures are shown as 12 feet in height.
- Exterior lighting will be provided at both the front and rear entrances of the individual units according to the plans.

(N) Pedestrian Walkways

- Pedestrian circulation is reasonably provided throughout the site. A connection is provided to Lowndes Hill Rd., but there are no surrounding sidewalks to connect to.

(O) Fences and Walls

- A 6-foot wall has been provided along the adjacent single-family detached residential property line.
- A retaining wall is provided the rear of the property to address grading. A detail on the retaining wall was not provided.
- Black decorative fencing is indicated around the primary stormwater detention basin.

Design Review Board Comments

The project design was presented to the Design Review Board – Urban Panel for informal review on February 3, 2022. The board provided the following comments:

- The effort to minimize the roof and add vertical elements has been successful, but the effort to minimize the scale by adding new materials has maybe gone too far. The color selections are appreciated.
- Noted that if a local jurisdiction states that something needs to be changed, the State may relent on some of the housing requirements related to the sloped roof.
- Taller buildings are appropriate as the City continues to grow. I'm pleased with it as an entrance into the City.
- The site plan and massing of the buildings will allow the more intense use to buffer the neighborhood with the interstate, which is the most intense use of all.
- The clubhouse should reflect similar design style to the main buildings.
- The statement that this is gateway architecture is a little amiss.
- The perspective drawings should show the buildings with the actual roofs as they are from a lower level so you can see what the actual view would be.

STAFF RECOMMENDATION:

Recommend Approval with conditions and comments

Staff Comments and Conditions

Planning Comments and Conditions

Comments:

- 1) **While the proposed buildings are 2 stories higher than those in the adjacent complex, staff finds that the proposed massing is acceptable given the existing grades in relation to adjacent structures as well as the added variation in the roofline to provide visual relief as required by Section 19-6.8.9.A.2.**

- 2) Prior to permitting, the applicant shall work with staff to provide updated façade materials for the clubhouse that are in keeping with those of the main buildings.
- 3) Prior to permitting, the applicant shall work with staff to reduce the amount of differing siding types to reduce visual clutter.
- 4) At the time of permit, transparency on the street-facing facades of all buildings shall be increased to achieve a minimum glazed area of 20 percent to comply with Section 19-6.8.9.G.1.
- 5) While some façade projections fall below the minimum dimensions set forth in Section 19-6.8.9.D.2, staff finds that the design of the façade reads as several vertical elements and meets the intent of the ordinance for massing and articulation, and recommends acceptance of the variance request for this requirement.
- 6) All signage shall obtain a sign permit. Each sign is required to obtain its own individual permit. Signage must meet the requirements of Appendix J: Sign Standards and Design Guidelines.
- 7) At the time of CO, the applicant shall install a sign at the stub-out indicating it is to be used for future connectivity.
- 8) Prior to receipt of a Certificate of Occupancy, an Affidavit of Substantial Compliance shall be provided at the time of Final Zoning Inspection.

City Engineer Comments and Conditions

Recommend: Approve

Comments:

Application review approval is subject to the applicant satisfying all conditions and requirements of the engineering divisions.

Civil Engineer Comments and Conditions

Recommend: Approve w/ Comments

Comments:

Standard Comments

- 1) All proposed public and private improvements shall meet the requirements of Section 19-6.7 Site Development and Related Infrastructure of the City's Land Management Ordinance. The design and construction of the public and private infrastructure shall conform to all applicable federal and state regulations and the requirements of the City's design and specifications manual.
- 2) All improvements proposed within the City's public right of way shall be subject to the requirements of Articles I and II of Chapter 36 – Streets, Sidewalks and Other Public Places of the City of Greenville Code of Ordinances. As required, all improvements or construction activity performed within the public right of way require an approved encroachment permit.
- 3) A Site Plan Permit will be required for the development detailing the demolition, grading and stormwater, utility improvements and site access.
- 4) A traffic impact analysis will be required as a condition of site permit approval if the administrator determines that a proposed development will generate 100 or more traffic trips during the peak hour or if the administrator determines that a proposed development involving substantial improvement or change of use will generate 125 or more traffic trips during the peak hour. Improvements to the existing transportation infrastructure by a developer will be required as a condition of permit issuance if the projected level of service for the build-out year of the development descends below level "D" for any intersection within the study area as a result of the proposed development.
- 5) The improvements shall comply with Chapter 11 of the International Building Code for site accessibility. Per Section 1104, a minimum of one accessible route shall be provided from each site arrival point (public transportation stops, accessible parking, accessible passenger loading zones and public streets or sidewalks) to the accessible building entrance served. Additionally, an

accessible route shall be provided within the site to connect accessible buildings, facilities, elements and spaces on the site.

Site Specific Comments

- 6) Woodlark Street/Oakley Drive Right of Way Abandonment - The development proposes to abandon a portion of existing public right of way of Woodlark Street/Oakley Drive. Woodlark Street/Oakley Drive is an existing dead-end street owned by the City. The developer must submit a formal petition to abandon the public right of way and City Council must approve the abandonment.
- 7) Right of way abandonments are administered by the Engineering Department. The petition has to be signed by the applicant and preferably by as many supporting property owners having frontage on the section of right of way to be abandoned. There is a \$150 application fee and the application requires a plat to be submitted showing the area of abandonment. The petition, plat, and application fee can be submitted to Eddie Littleton in the City Engineering Division. The scheduling involves typically a 2-week review period by all utilities/agencies that may be impacted by the abandonment to be followed by a public hearing and two Council readings for final approval. A typical abandonment application takes 10-12 weeks for review and approval from the application date. Upon approval by City Council, our Legal Department will prepare quit-claim deeds to transfer the City's right, title, and interest in the right of way.
- 8) The existing sewer line on Woodlark Street/Oakley Drive will require a permanent easement to be shown on the plat and recorded.

Environmental Engineer Comments

Recommend: Approve w/ Comments

Comments:

- 1) Wastewater – Wastewater service for the development will be subject to the following conditions:
 - a. There are existing City sewer mains available to serve this development. The developer must confirm that the existing sewer system/treatment plant has available flow from the City and ReWa by submitting a Sewer Capacity Request Form (Service Lateral Fillable Form aka PSSAR).
 - b. The wastewater permitting and acceptance process shall meet those requirements set forth in the City of Greenville Design and Specifications Manual Chapter 8.
 - c. Each building shall have a separate and direct connection to the City's sanitary sewer main.
 - d. Prior to using an existing lateral, the existing lateral must be tested to ensure that it conforms to City of Greenville performance requirements. Provide a video documenting the condition of the existing service connection prior to its reuse. A new lateral will be required if the existing lateral is in poor condition. The final Certificate of Occupancy will not be issued until the lateral is shown to be in good condition or a new lateral is installed.
 - e. Each building shall require a new service fee through ReWa.
- 2) Stormwater Management – The development is considered a larger common plan and must be performed in conformance with the City's stormwater ordinance (Article 19-7: Stormwater Management). Specifically, you will need to have a Professional Engineer prepare a non-single family site plan for the development and it will be subject to the following conditions:
 - a. A stormwater plan is required to be submitted with the non-single family site plan permit. Submit the major, minor or the soil erosion and sediment control stormwater plan as appropriate.
 - b. At a minimum, a stormwater plan should include:

- i. Proposed layout.
 - ii. Appropriate erosion control best management practice standard details.
 - iii. A construction entrance.
 - iv. A concrete washout.
 - v. Silt fence
 - c. The plan should also show any drainage details needed to ensure the development will not adversely impact adjacent properties and will adequately control runoff from offsite.
 - a. If the proposed development creates a new impervious surface greater than or equal to 0.25 acres, water quantity will be required for the 2, 10 & 25 year 24 hour storm event with no significant increase in the 100 year 24 hour storm event.
 - b. Any stormwater drainage system conveying offsite water shall be designed in compliance with the Stormwater Ordinance.
 - c. Water quality treatment is required when either:
 - The proposed development has a total impervious surface area ratio of 60% or greater and disturbs 50% or more of the parcel or larger common plan over a five year period; or;
 - The proposed development creates a new impervious surface greater than or equal to 0.25 acres.
- 3) Floodplain – A portion of the subject property is not located in a FEMA floodplain as determined utilizing 2019 Flood Insurance Rate Maps, however some of the ROW for Oakley Drive does have regulated floodplain.
 - a. Compensatory storage is required for all storage lost or displaced in a regulatory floodplain. Hydraulically equivalent compensatory storage requirements for fill or structures in a riverine regulatory floodplain shall be at least equal to 1.5 times the volume of regulatory floodplain storage lost or displaced. Such compensation areas shall be designed to drain freely and openly to the channel and shall be located opposite or adjacent to fill areas. A deed or plat restriction is required to prohibit any modification to the compensation area. The regulatory floodplain storage volume lost below the existing ten-year frequency flood elevation must be replaced below the proposed ten-year frequency flood elevation. The regulatory floodplain storage volume lost above the ten-year existing frequency flood elevation must be replaced above the proposed ten-year frequency elevation.
 - b. If the proposed development would result in a change in the mapped regulatory floodplain, regulatory floodway, or the BFE on a site, the applicant shall submit sufficient data to the city and FEMA to obtain the appropriate letter of map change (LOMC). All adjacent property owners, communities, and the state department of natural resources shall be notified prior to any alteration or relocation of a floodplain, and submit copies of such notifications to the city. A LOMC due to fill does not preclude a development from meeting the compensatory storage requirements.
- 4) *Wetland provisions:* All impacts to jurisdictional waters of the U.S. and waters of the state must be permitted in compliance with all federal and state standards. This includes any permits from the Army Corp of Engineers and any mitigation requirements.
 - a. *Submittal requirements:*
 1. The applicant shall delineate all wetland area boundaries in accordance with the current federal wetland determination methodology on the plans.
 2. All federal and state permitting documents relating to wetlands shall be provided to the city along with all permits issued.
 3. All federal and state wetland monitoring reports shall be provided to the city.

Restrictions: Preservation of wetlands shall be provided by deed or plat restrictions.

Traffic Engineer Conditions

Recommend: Approve w/ Conditions

Comments:

Approval of the site plan does not constitute approval of the lighting plan. Lighting plan shall include photometric data and information regarding mounting height, fixture wattages, and lighting levels. Cut sheet information is preferred. Site lighting must comply with Section 19-6.4 of the Land Management Ordinance. No new site lighting shall be installed without an approved lighting plan.

Please revise site lighting plan to include min, max and avg. lighting levels on the photometric plan. Lighting plan is not approved at this time.

Fire Department Comments and Conditions

Recommend: Approve w/ Comments

Comments:

At time of site plan submittal, ensure compliance with 2018 IFC D105.1 is met for road widths in front of building 1 and 2 for aerial access.

Parks & Recreation Comments

Recommend: Approve

Comments:

Reviewed, no comment.

Trees & Landscape Comments

Recommend: Approve w/ Comments

Comments:

A tree mitigation package will need to be submitted with site plan permits showing how the applicant intends to mitigate any trees removed for construction.

Community Development Comments

The Riley at Overbrook" development has been awarded 2021 SC State Low Income Tax Credits by providing 88 affordable rental units to families, non-age restricted. Units will service families up to 60% of the Area Median Income. SC Housing 2021 Income limits for 60% Standard is capped at \$32,460 – 1 person household; \$37,080 – 2 person household; \$42,780 – 3 person household; and \$46,320 – 4 person household. Income and rent limits are subject to change as data is updated. Development exceeds affordable housing goals in GVL 2040 and will increase available affordable housing stock at 60% AMI and below.



city of greenville

APPLICATION FOR MULTIFAMILY DEVELOPMENT

Contact Planning & Development (864) 467-4476

Office Use Only:

Application# _____ Fees Paid _____
Date Received _____ Accepted By _____
Date Complete _____ App Deny Conditions _____

APPLICANT/OWNER INFORMATION

*Indicates Required Field

	APPLICANT	PROPERTY OWNER
*Name:	DHD Riley, LLC / Drew Schaumber	Wells Home Loan Servicing, LLC
*Title:	Member	Owners
*Address:	709 N. Main Street, Anyor	PO Box 8838
*State:	South Carolina	South Carolina
*Zip:	29511	29604
*Phone:	202-905-7722	864-505-6950
*Email:	drew@schaumberdevelopment.com	shawn@newcitydevelopment.com

PROPERTY INFORMATION

*STREET ADDRESS No 911 Designation for street address at this time - Proposed street name change to Oakley Drive

*TAX MAP # 0195000100201

*CURRENT ZONING DESIGNATION RM-3

*TOTAL ACREAGE +/- 5.75

PROPOSED DEVELOPMENT INFORMATION

*TYPE OF APPLICATION: ☒ New ☐ Modification – Major ☐ Modification – Minor

*ORIGINAL APPLICATION # (put N/A if new application) N/A

*NUMBER OF UNITS 88 Units - Building 1 (48 units) Building 2 (40 units)

*MULTIFAMILY DEVELOPMENT TYPE Two (2) buildings - four (4) stories each & (1) story clubhouse

*AGE RESTRICTED HOUSING (Y / N) No

NUMBER OF UNITS AND/OR PERCENTAGE OF AGE RESTRICTED UNITS (If applicable) _____

INSTRUCTIONS

1. The applicant is **required** to schedule a pre-application meeting according to the dates outlined on the Board calendar. Call (864) 467-4476 to schedule an appointment.

*PREAPPLICATION MEETING DATE November 5, 2021

2. If the application includes more than one (1) parcel and/or more than one (1) owner, the applicant must provide the appropriate deed book/page references, tax parcel numbers, and owner signatures as an attachment.
3. All applications and fees (made payable to the City of Greenville) for designation as a Multifamily Development must be received by **no later than 2:00 pm** of the date reflected on the Board schedule.

- A. Multifamily development - New \$550.00 – public hearing required
- B. Multifamily development – Major Modification \$275.00 – public hearing required
- C. Multifamily development – Minor Modification \$150.00 – administrative review

4. Staff will review the application for "sufficiency" pursuant to Section 19-2.2.6, Determination of Sufficiency. If the application is deemed insufficient, staff will notify the applicant and request that the application be revised and resubmitted to address insufficiency comments. In this event, the item will go back into the queue for review. Please refer to **section 19-2.3.13 (D), Multifamily residential development** for additional information.
5. **Public Notice Requirements.** Multifamily development applications require a Planning Commission public hearing. There is also an informal review from the Design Review Board required prior to the planning commission hearing.
6. The applicant is responsible for sign posting the subject property. Instructions will be provided at the time of submission.
7. Multifamily development applications also **require** a developer-led neighborhood meeting which is to be held at least eight (8) days prior to the scheduled Planning Commission hearing (Sec. 19-2.2.4, Neighborhood meetings). Information will be emailed within a few days of submittal to the listed applicant email provided on page one of this application.
8. Upon planning commission recommendation, the application item will be scheduled for city council hearing.

To be filled out at time of application submittal

- _____ Public Hearing signs are acknowledged as received by the applicant
- _____ Posting sign instructions and affidavit are acknowledged as received by the applicant

***APPLICANT SIGNATURE** _____

9. Please verify that all required information is reflected on the plan(s), and **submit one (1) paper copy and one (1) electronic version** of the application submittal package.
10. **Please read carefully:** The applicant and property owner affirm that all information submitted with this application; including any/all supplemental information is true and correct to the best of their knowledge and they have provided full disclosure of the relevant facts.

In addition, the applicant affirms that the applicant or someone acting on the applicant's behalf has made a reasonable effort to determine whether a deed or other document places one or more restrictions on the property that preclude or impede the intended use and has found no record of such a restriction.


If the planning office by separate inquiry determines that such a restriction exists, it shall notify the applicant. If the applicant does not withdraw or modify the application in a timely manner, or act to have the restriction terminated or waived, then the planning office will indicate in its report to the planning commission that granting the requested change would not likely result in the benefit the applicant seeks.


12/20/2021

***APPLICANT ACKNOWLEDGEMENT SIGNATURE** _____

***DATE** _____

11. Per acknowledgement and understanding of item #8, the applicant hereby affirms that the tract or parcel of land subject of the attached application is ___ or is not **X** restricted by any recorded covenant that is contrary to, conflicts with, or prohibits the requested activity.

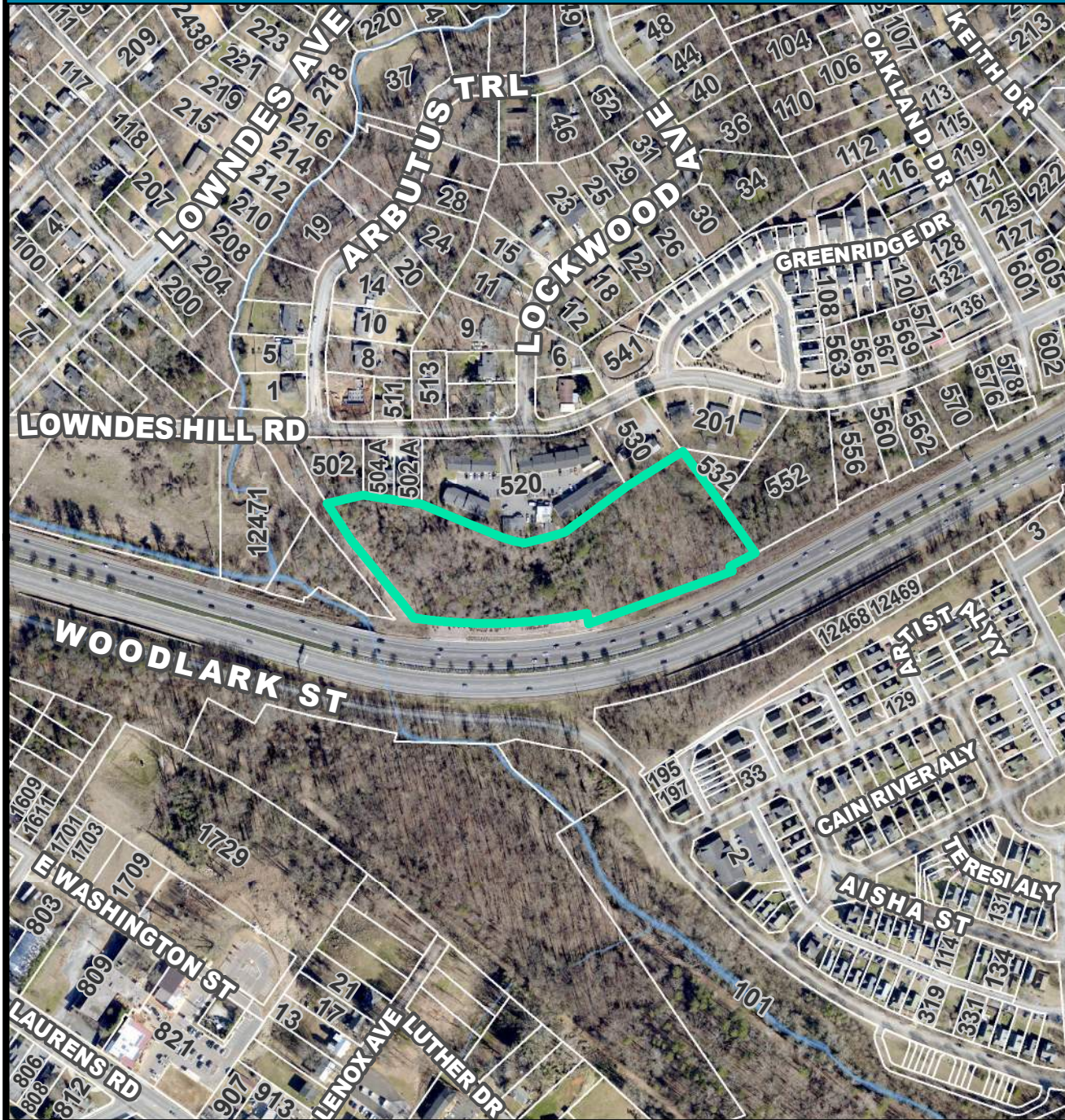
*Signatures	
*Applicant	Drew Schamber DHO Riley
*Date	12/20/2021
*Property Owner/Authorized Agent	Michael S. Thomas
*Date	12/20/2021

APPLICATION REQUIREMENTS

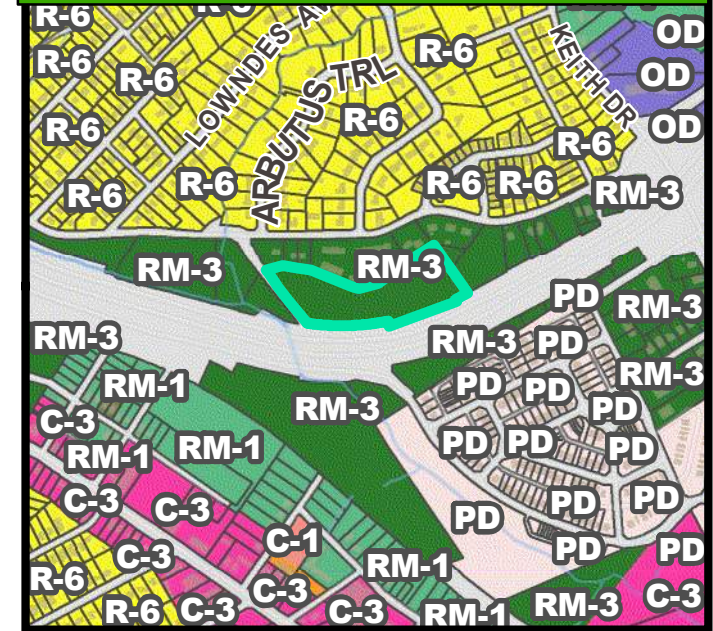
1. Multifamily development format and content requirements are reflected in the City of Greenville Administrative Manual at Appendix 'H'.
2. The submitted information shall include at a minimum:
 - a. Completed application for Multifamily development;
 - b. Context map, showing relationship of proposed development to the surrounding neighborhood;
 - c. Photographs of surrounding area;
 - d. Site plan, showing building(s) footprint, parking lot layout, pedestrian and vehicular access, internal walkways, amenities (i.e. pool, playground, picnic area, etc.), and service areas (i.e. dumpster pad/trash collection area, HVAC units, car wash area, etc.);
 - e. Grading plan, showing existing and proposed topographic contours, storm drainage collection facilities, existing and proposed retaining walls (with top-of-wall and bottom-of-wall elevations for at least the ends of the walls and the high point of the walls);
 - f. Building elevations, of all sides of the building(s), with exterior materials and colors indicated;
 - g. Plan showing elevation of proposed buildings in relation to adjoining structures;
 - h. Building floor plans;
 - i. Landscape plan, showing existing vegetation that will remain and the new plants to be added;
 - j. Lighting plan, showing location of light fixtures (on the site and on the building), cut sheets of the proposed light fixtures, and wattage; and
 - k. Materials board.
3. Please refer to ***Section 19-6.8, Design standards for multifamily residential development*** for additional information.

MD-21-1004 • LOWNDES HILL ROAD AND I-385

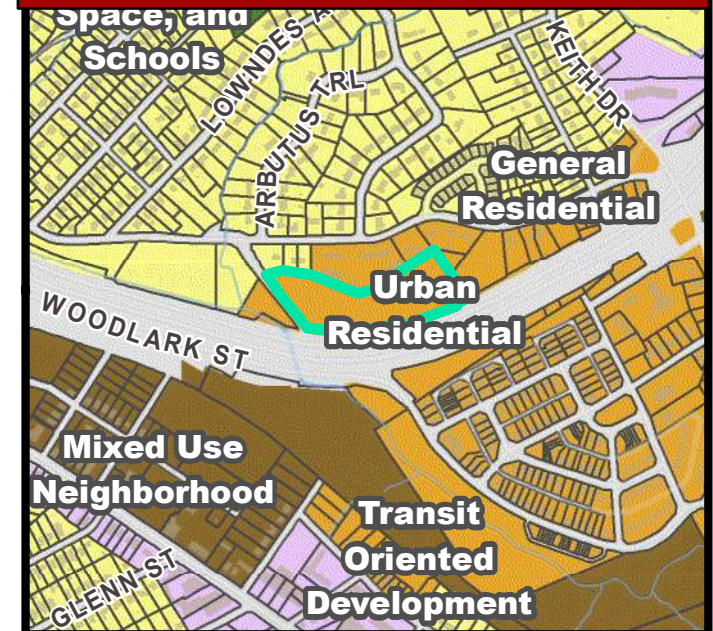
AERIAL VIEW



CURRENT ZONING

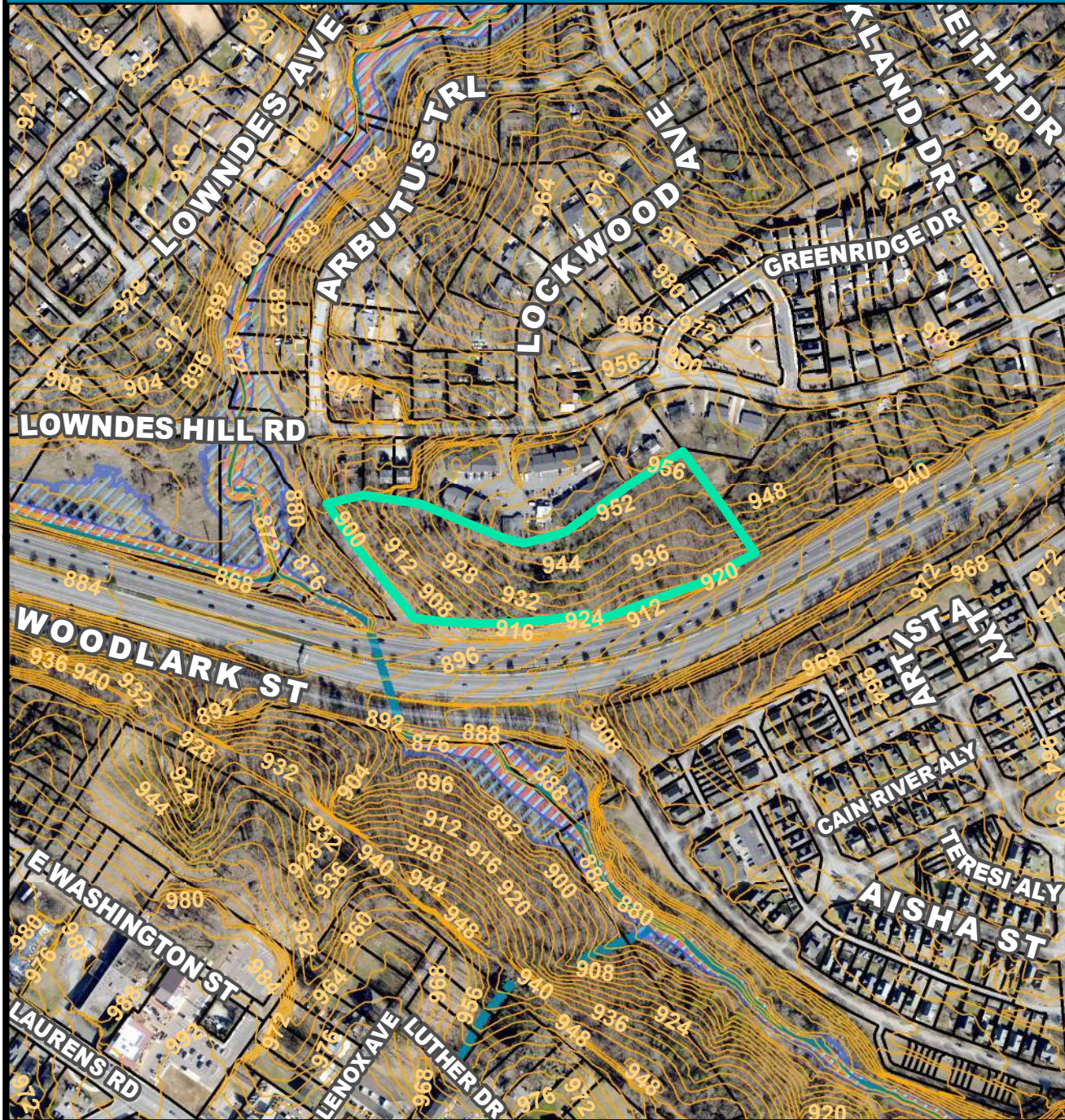


FUTURE LAND USE



MD-21-1004 • LOWNDES HILL ROAD AND I-385

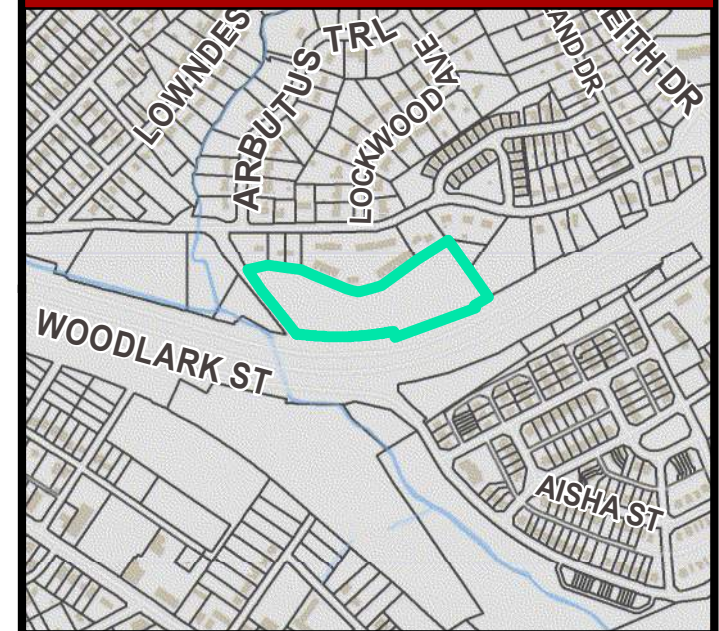
NATURAL / ENVIRONMENTAL FEATURES



SPECIAL EMPHASIS NEIGHBORHOODS



PRESERVATION OVERLAYS



The Riley Overbrook

a Family Apartment Community
Greenville, South Carolina



The Riley Overbrook

Notes: Project Summary				
<div>- 88 Total Units</div> <div>- (1) 48- Unit Building (Building 1)</div> <div>- (1) 40- Unit Building (Building 2)</div> <div>- (1) Community Building</div> <div>- (1) Gazebo</div> <div>- (1) Playground Area</div> <div>- (1) Trash Enclosure</div> <div>- Unit Mix:<div>1-Bed Units (16)</div><div>2-Bed Units (40)</div><div>3-Bed Units (32)</div></div>				
Unit Summary				
Unit	Unit Type	# of Units	Heated Area	Gross SF
A1	1 Bed/ 1 Bath	14	863	914
A1 (Sight and Hearing impaired)	1 Bed/ 1 Bath	1	863	914
A1 Type A	1 Bed/ 1 Bath	1	863	914
B1	2 Bed/ 2 Bath	37	1,153	1,211
B1 (Sight and Hearing impaired)	2 Bed/ 2 Bath	1	1,153	1,211
B1 Type A	2 Bed/ 2 Bath	2	1,153	1,211
C1	3 Bed/ 2 Bath	29	1,324	1,387
C1 (Sight and Hearing impaired)	3 Bed/ 2 Bath	1	1,324	1,387
C1 Type A	3 Bed/ 2 Bath	2	1,324	1,387
Total		88		
Building Summary				
Building	Heated Total Square Footage		Total Square Footage	
1	55,760		68,082	
2	46,536		57,435	
Clubhouse	2,399		2,484	

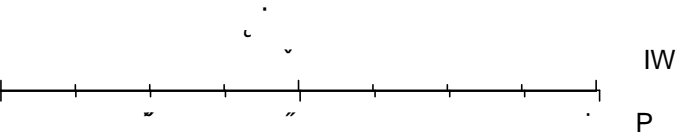
Building Breakdown				
Building 1				
Unit	Unit Type	# of Units	Heated Area	Total Heated
A1	1 Bed/ 1 Bath	7	863	6,041
A1 (Sight and Hearing impaired)	1 Bed/ 1 Bath	1	863	863
B1	2 Bed/ 2 Bath	22	1,153	25,366
B1 (Sight and Hearing impaired)	2 Bed/ 2 Bath	1	1,153	1,153
B1 Type A	2 Bed/ 2 Bath	1	1,153	1,153
C1	3 Bed/ 2 Bath	15	1,324	19,860
C1 Type A	3 Bed/ 2 Bath	1	1,324	1,324
Total		48		55,760
Building 2				
Unit	Unit Type	# of Units	Heated Area	Total Heated
A1	1 Bed/ 1 Bath	7	863	6,041
A1 Type A	1 Bed/ 1 Bath	1	863	863
B1	2 Bed/ 2 Bath	15	1,153	17,295
B1 Type A	2 Bed/ 2 Bath	1	1,153	1,153
C1	3 Bed/ 2 Bath	14	1,324	18,536
C1 (Sight and Hearing impaired)	3 Bed/ 2 Bath	1	1,324	1,324
C1 Type A	3 Bed/ 2 Bath	1	1,324	1,324
Total		40		46,536



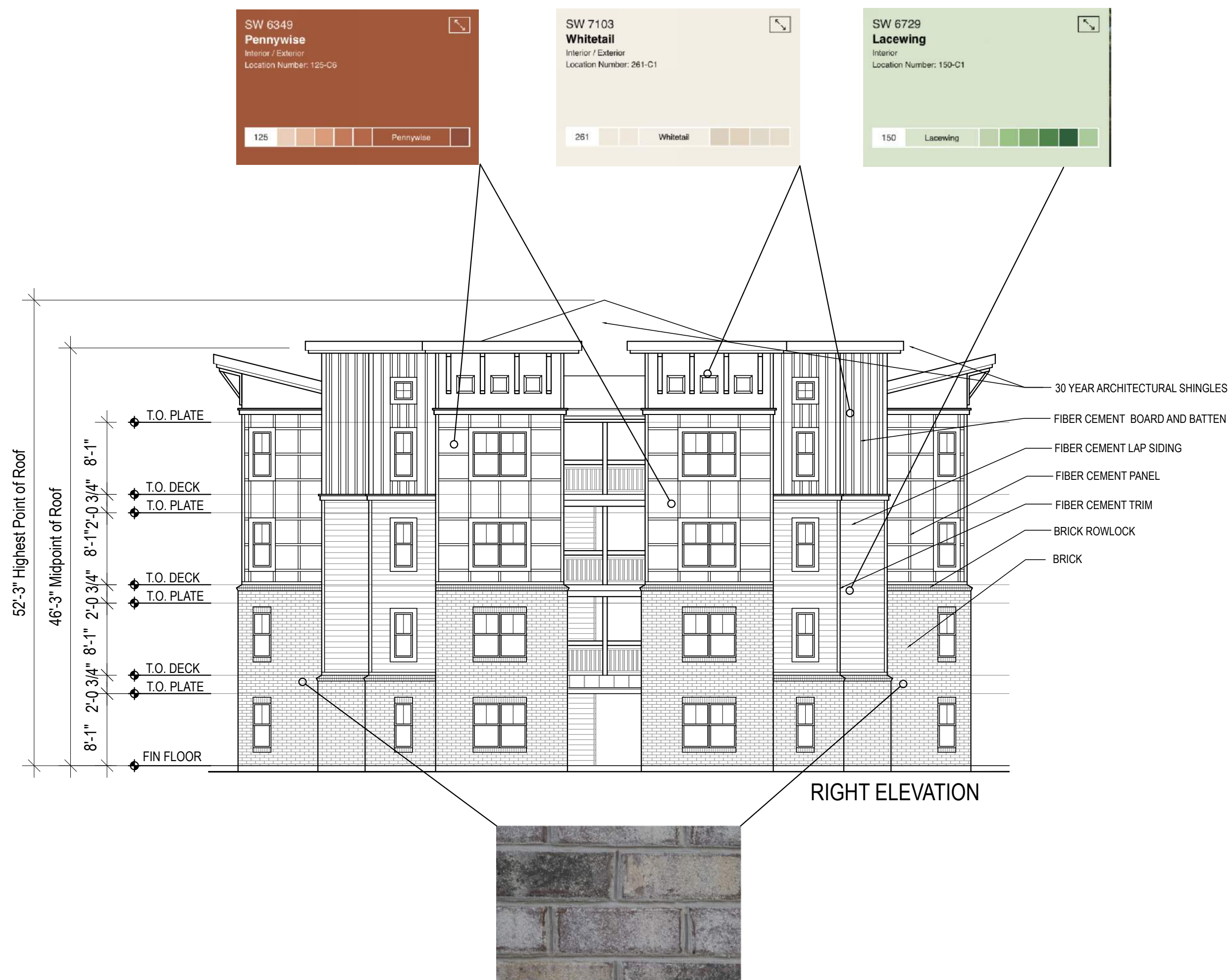
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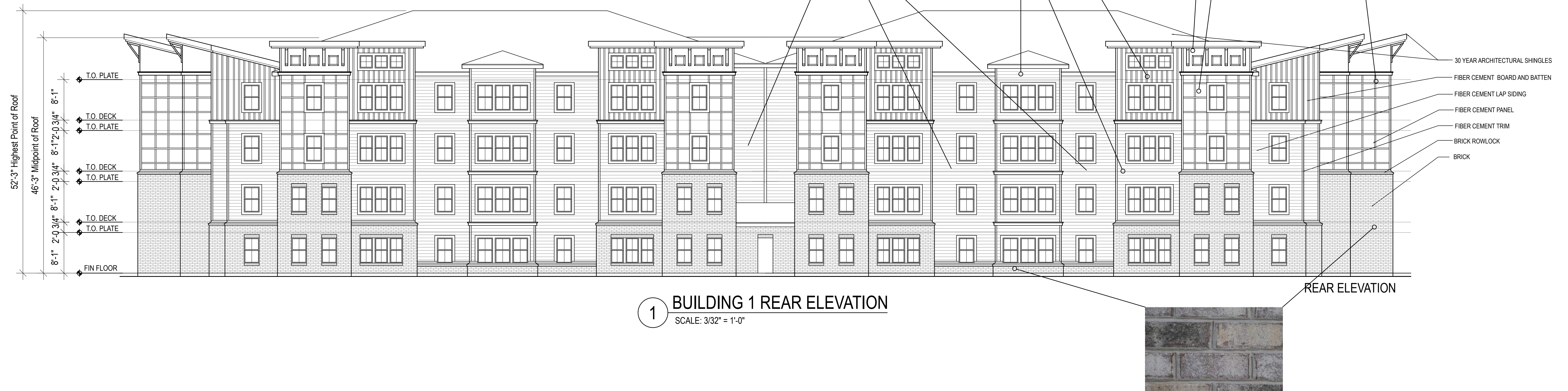
HHU



UHQLOOH&QW&L'YLVR UHQLOOH&WK&UROLQ
UHQLOOH&QW&L'YLVR UHQLOOH&WK&UROLQ
UHQLOOH&QW&WK&UROLQL'YLVR



2 BUILDING 1 RIGHT ELEVATION
SCALE: 3/32" = 1'-0"



1 BUILDING 1 REAR ELEVATION
SCALE: 3/32" = 1'-0"

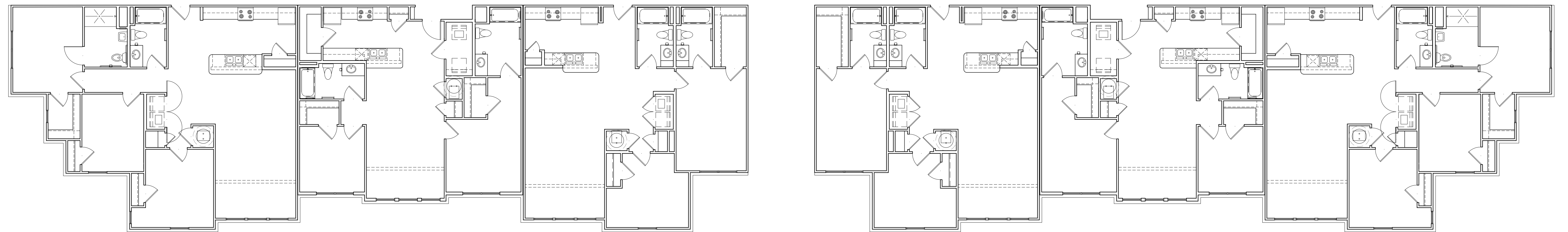
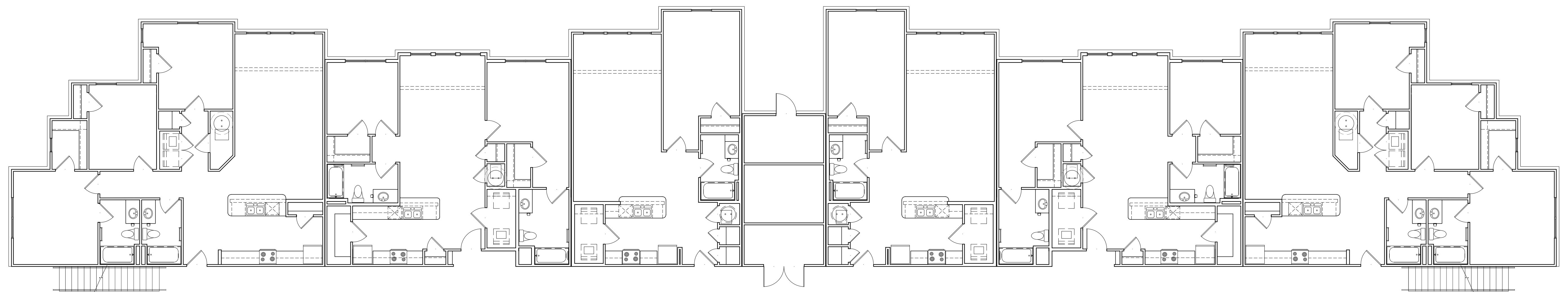
DHD Riley, LLC

The Riley Overbrook

Greenville, South Carolina

a Family Apartment Community

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1 BUILDING 1 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

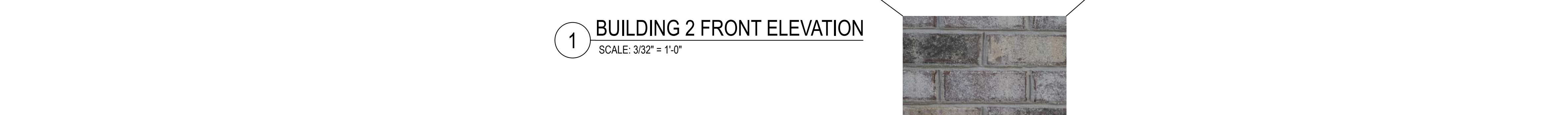
DHD Riley, LLC

The Riley Overbrook

Greenville, South Carolina

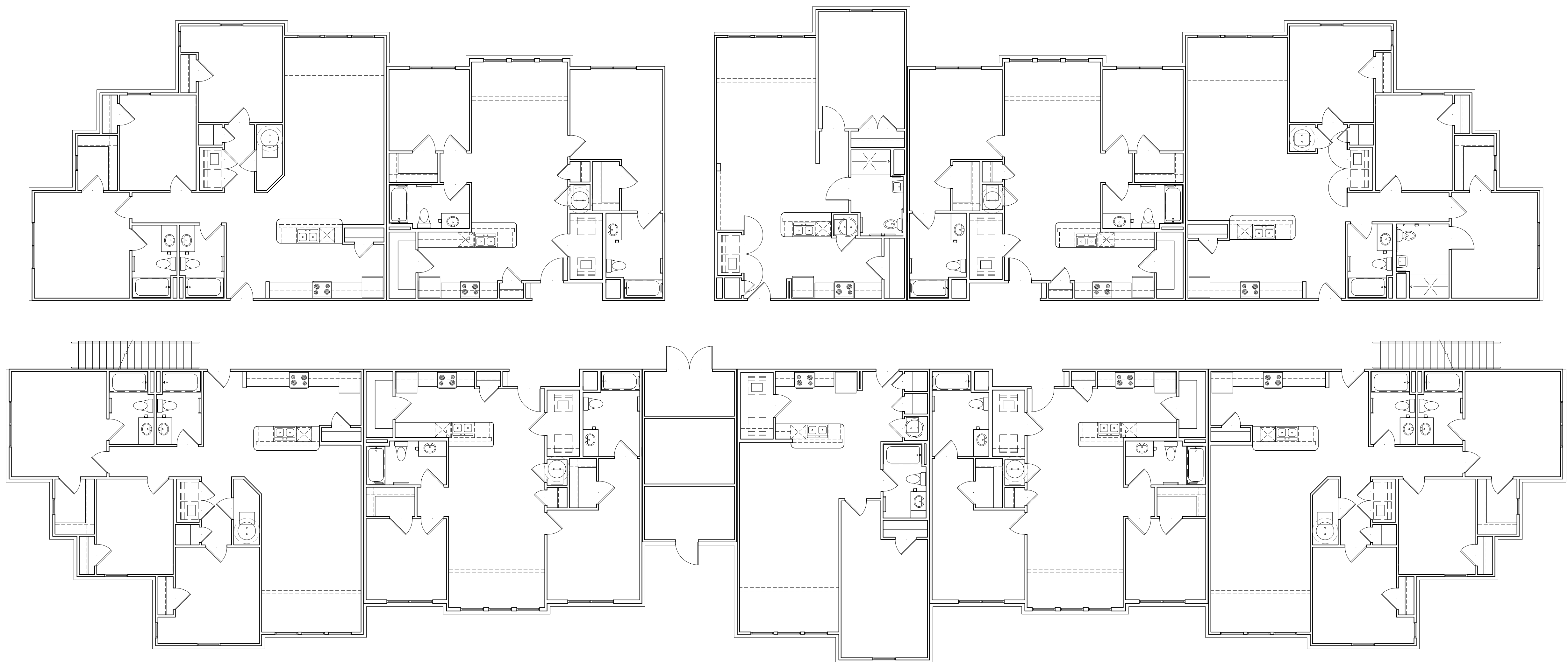
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1 BUILDING 2 FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

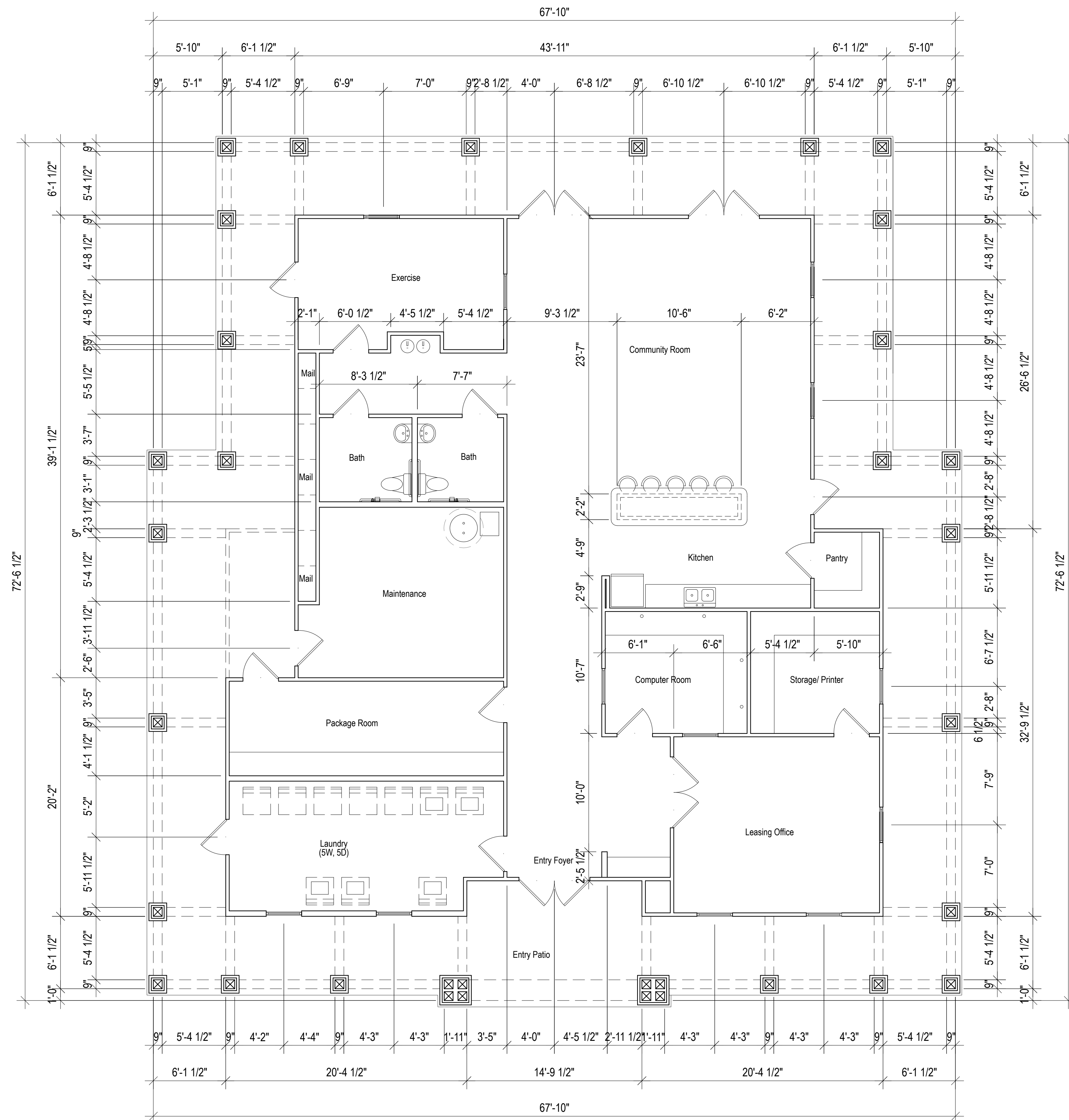
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1 CLUBHOUSE FLOOR PLAN
SCALE: 3/16" = 1'-0"



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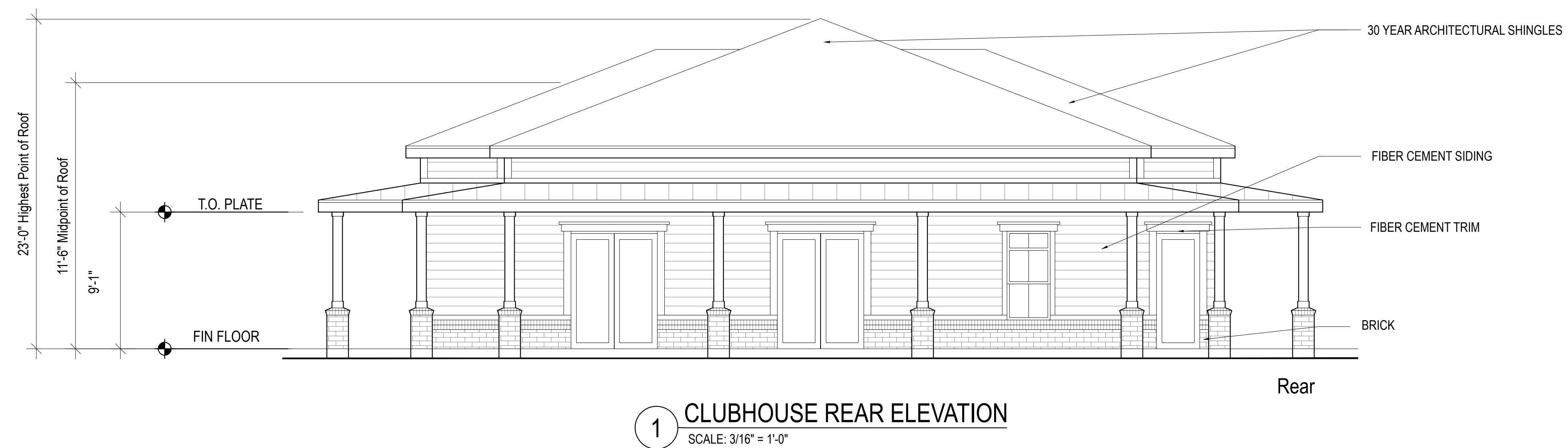
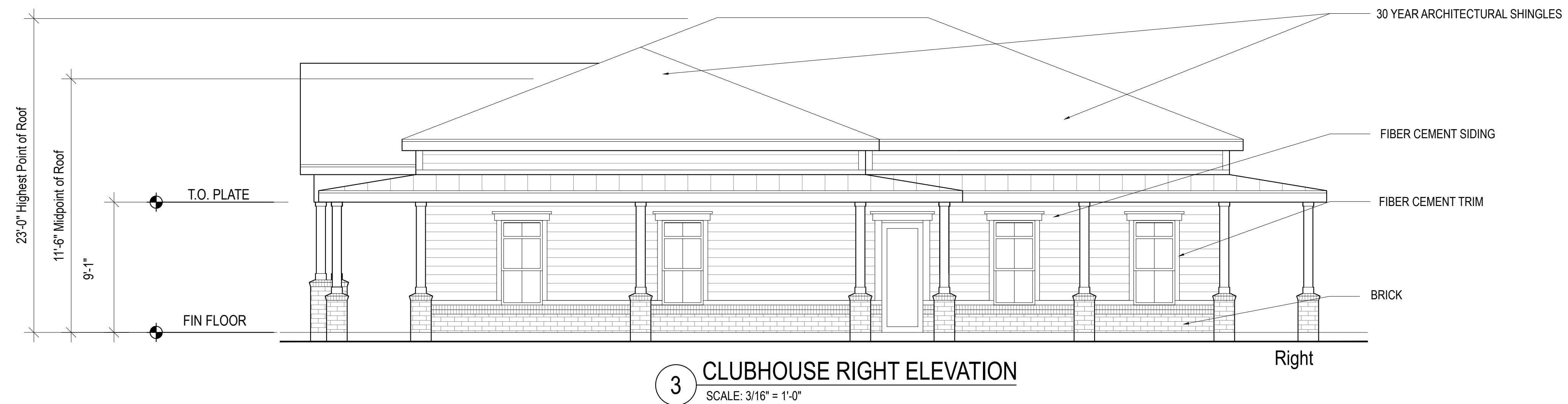
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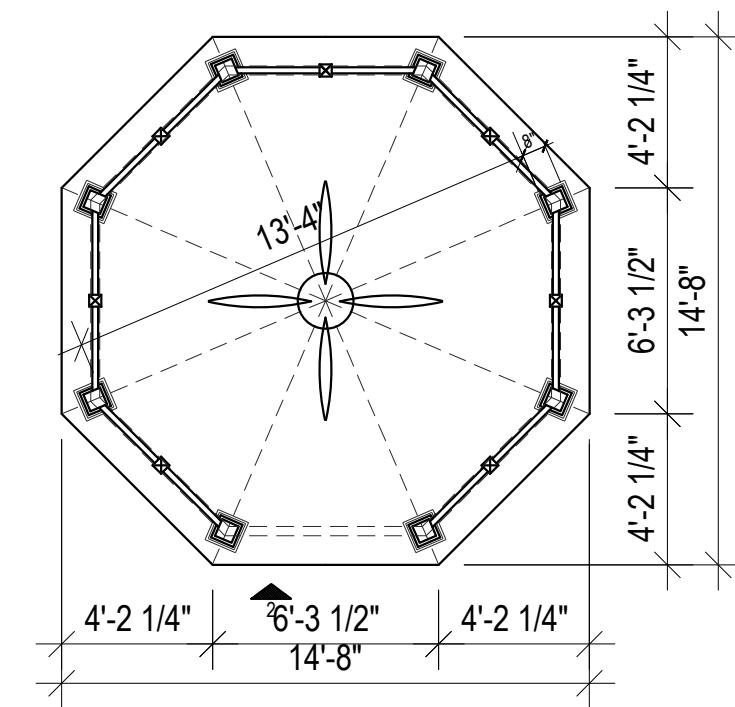
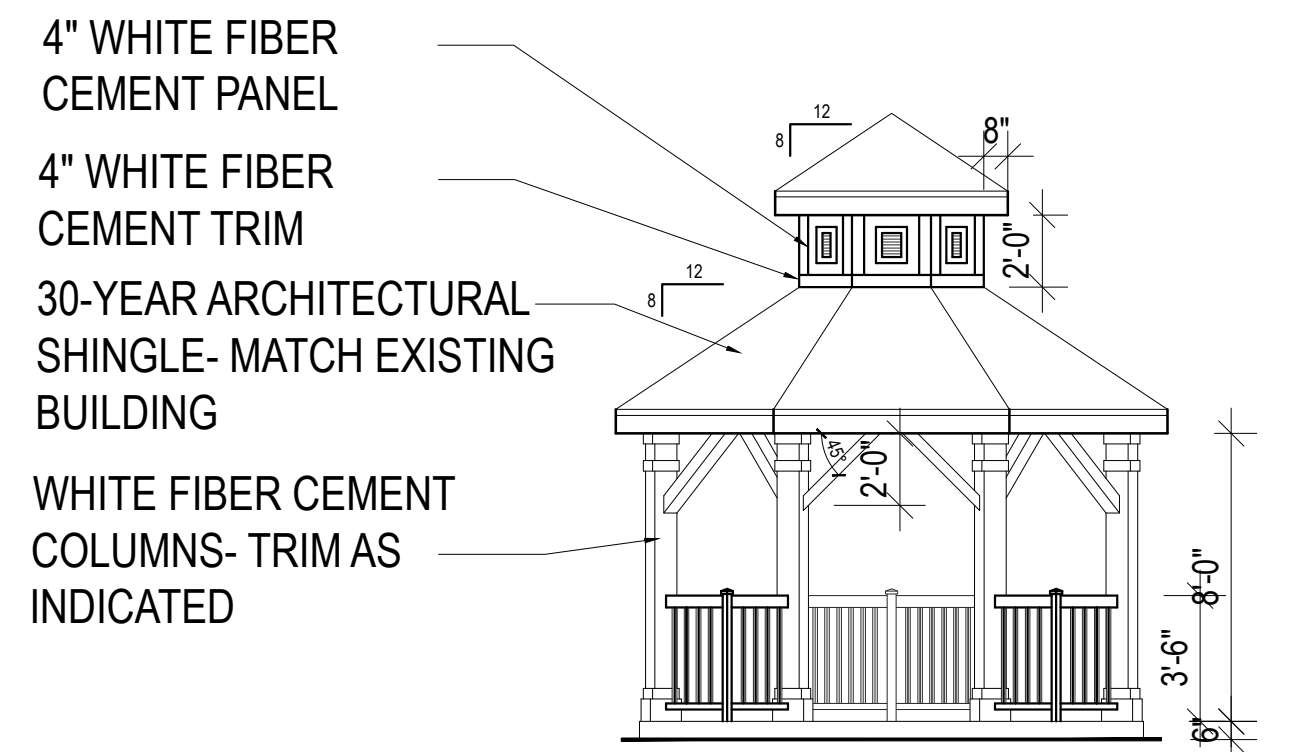


2 CLUBHOUSE FRONT ELEVATION RENDERING
SCALE: NTS

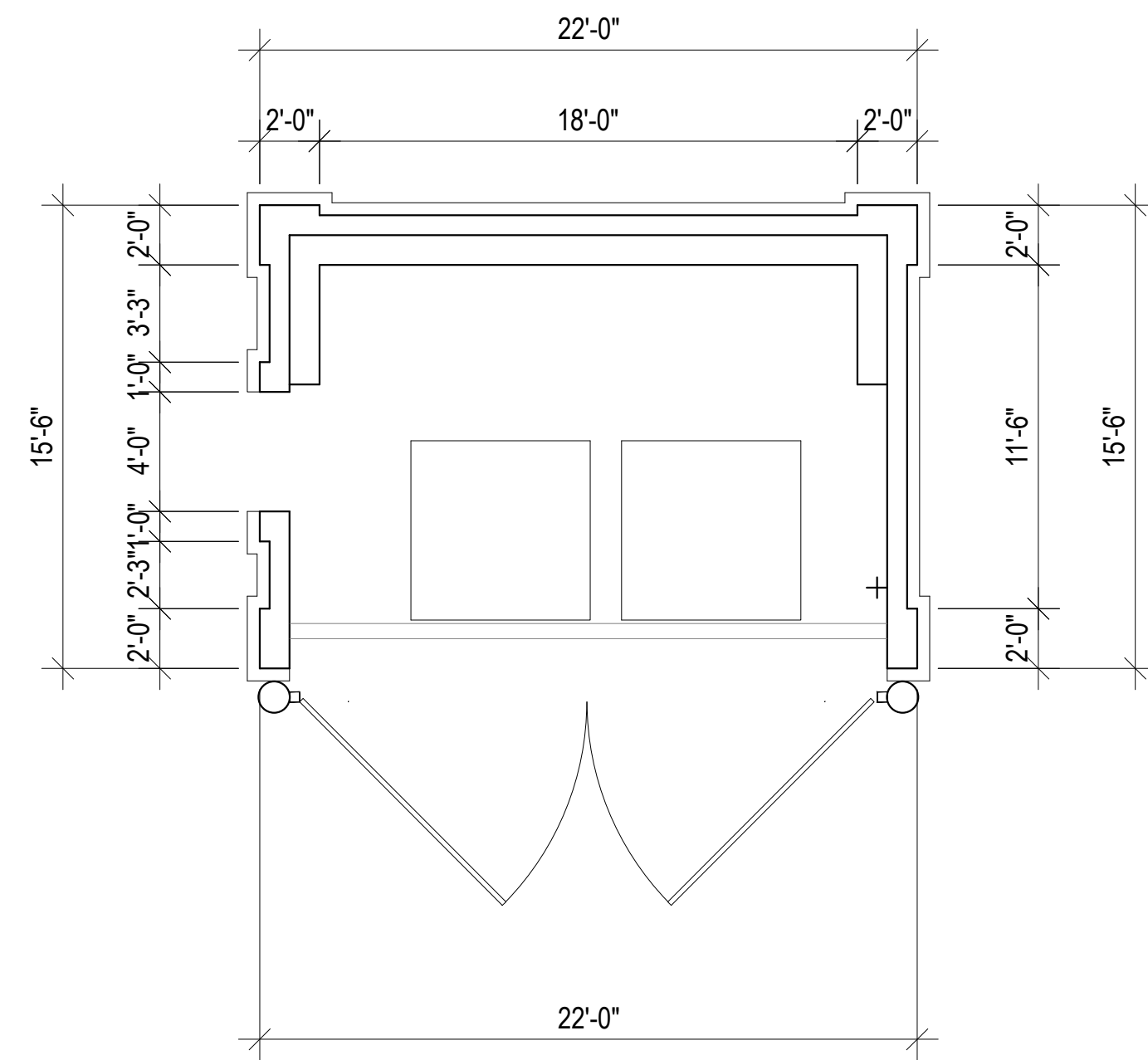
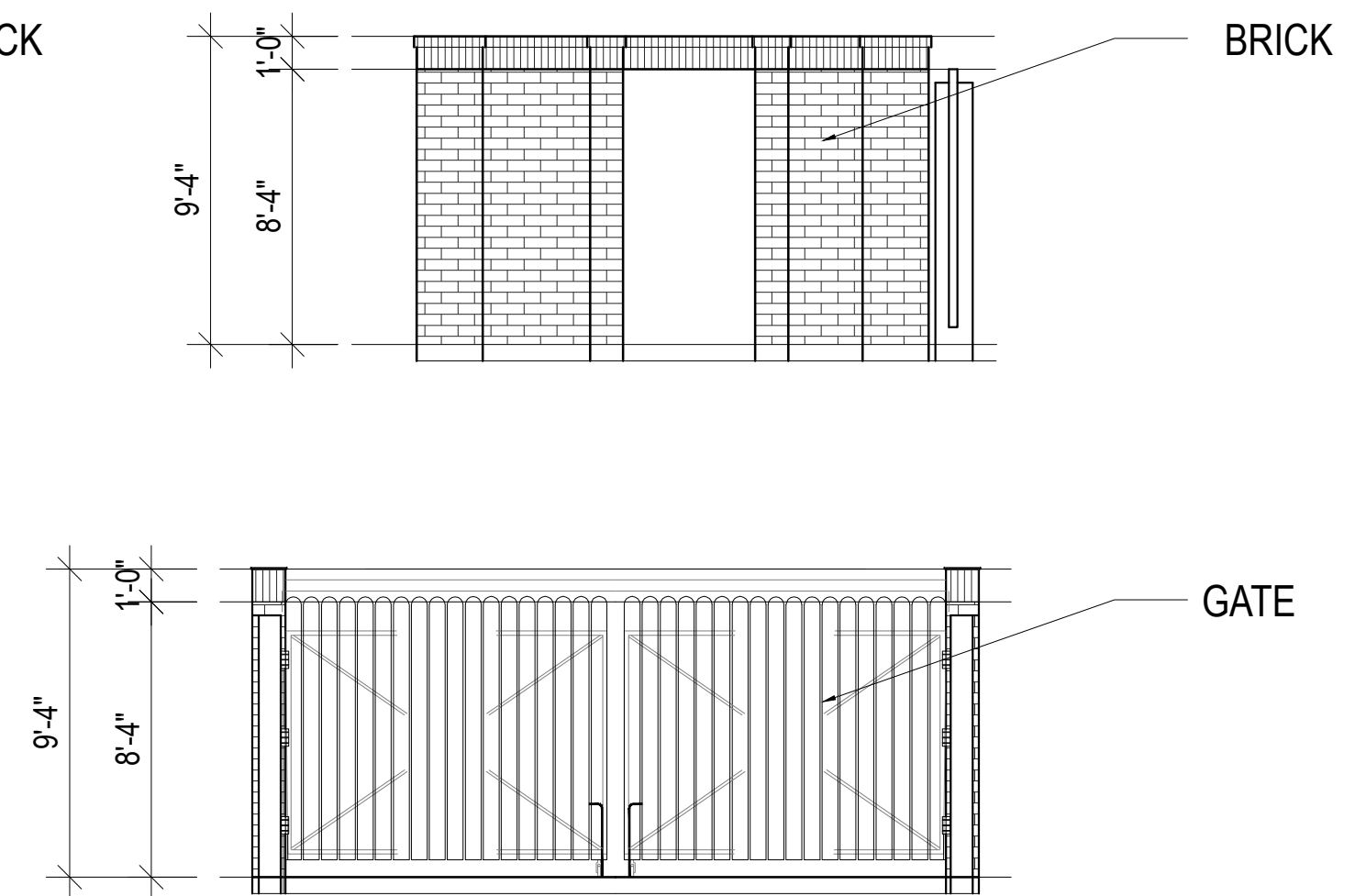
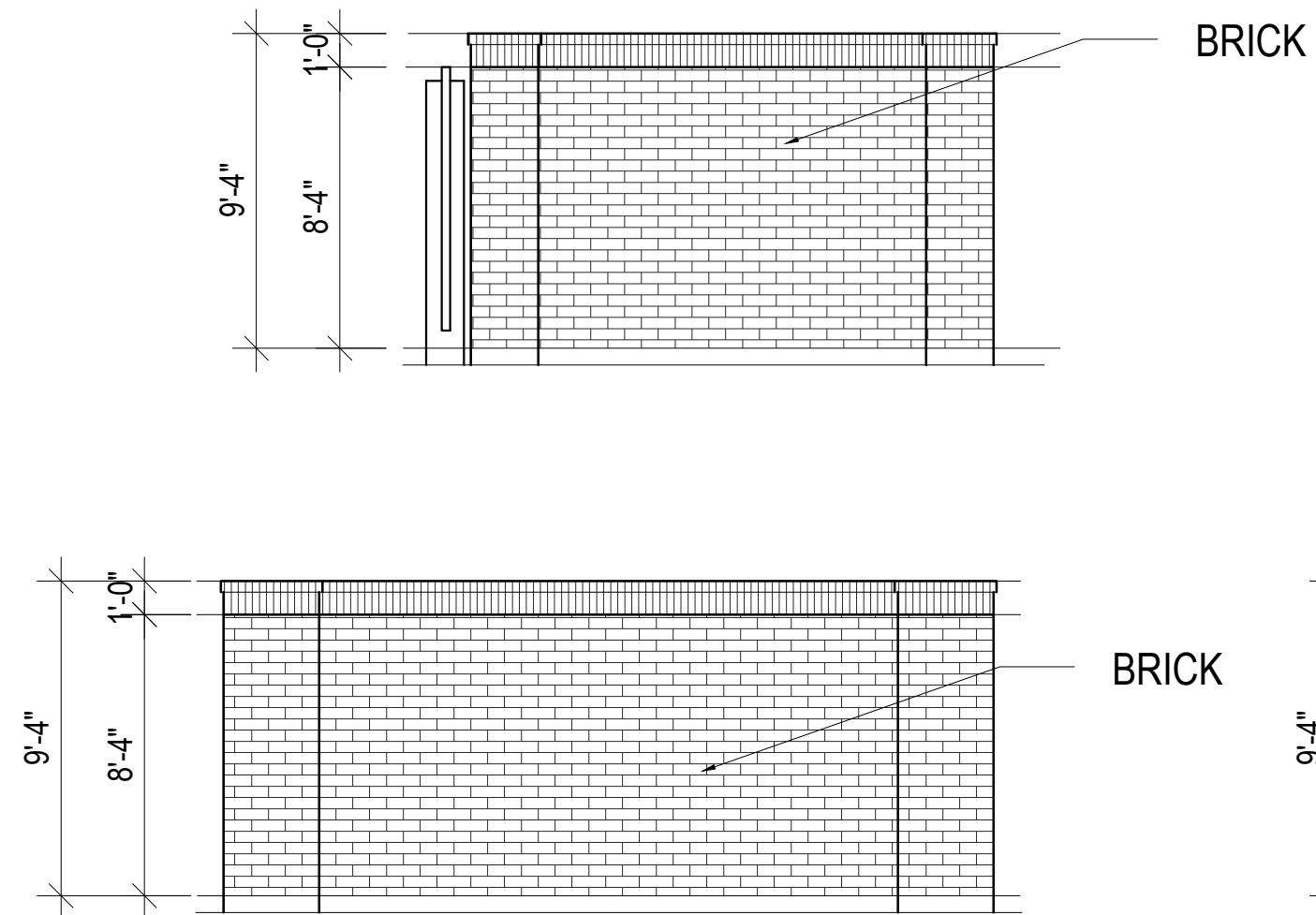


1 CLUBHOUSE FRONT ELEVATION
SCALE: 3/16" = 1'-0"





2 GAZEBO
SCALE: 3/16" = 1'-0"



1 TRASH ENCLOSURE
SCALE: 3/16" = 1'-0"



DEMOLITION LEGEND

REMOVE EXISTING TREE

310 TREES TO BE REMOVED

NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE

THOMAS & HUTTON

1501 Main Street • Suite 760
Columbia, SC 29201 • 803.451.6789
www.thomasandhutton.com

SCHAUMBER DEVELOPMENT, LLC
CITY OF GREENVILLE, SC

THE RILEY OVERBROOK

EXISTING CONDITIONS

JOB NO:	J-29240.0000
DATE:	1/20/2022
DRAWN:	BMC
DESIGNED:	CCW
REVIEWED:	MGD
APPROVED:	MGD
SCALE:	1" = 40'

EX1.1

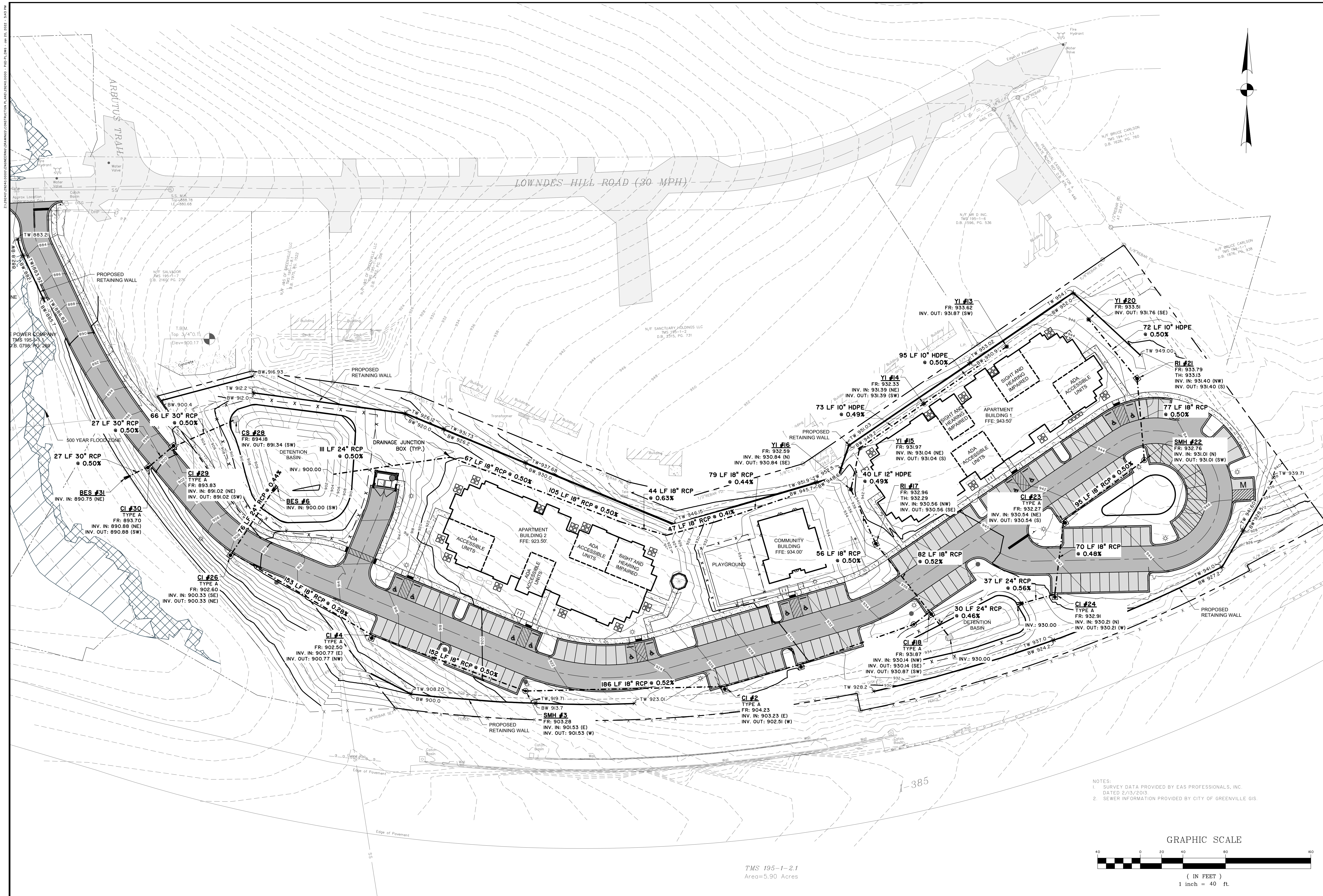
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CITY OF GREENVILLE, SC

RILEY AT OVERBROOK

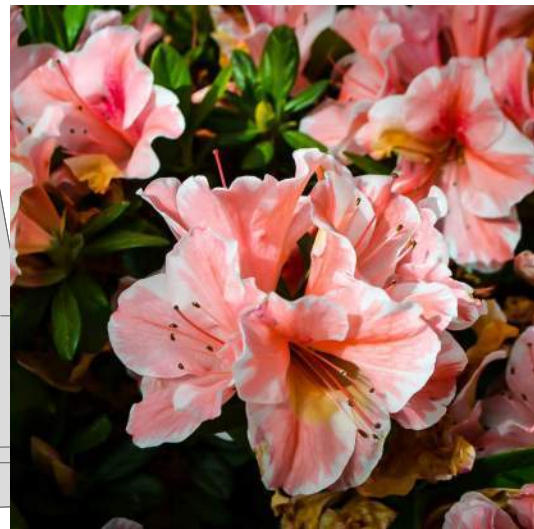
PAVING GRADING AND DRAINAGE PLAN

C3.1





CAMELLIA



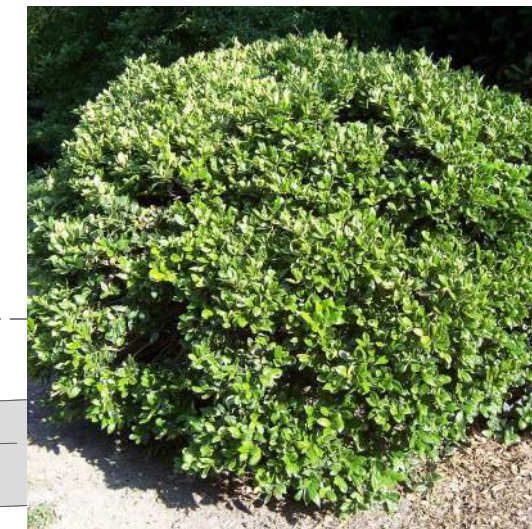
AZELEA



VIBURNUM



BUFFROD HOLLY



CARISSA HOLLY



DISTYLIUM



EVERGREEN LOROPETALUM



PODOCARPUS



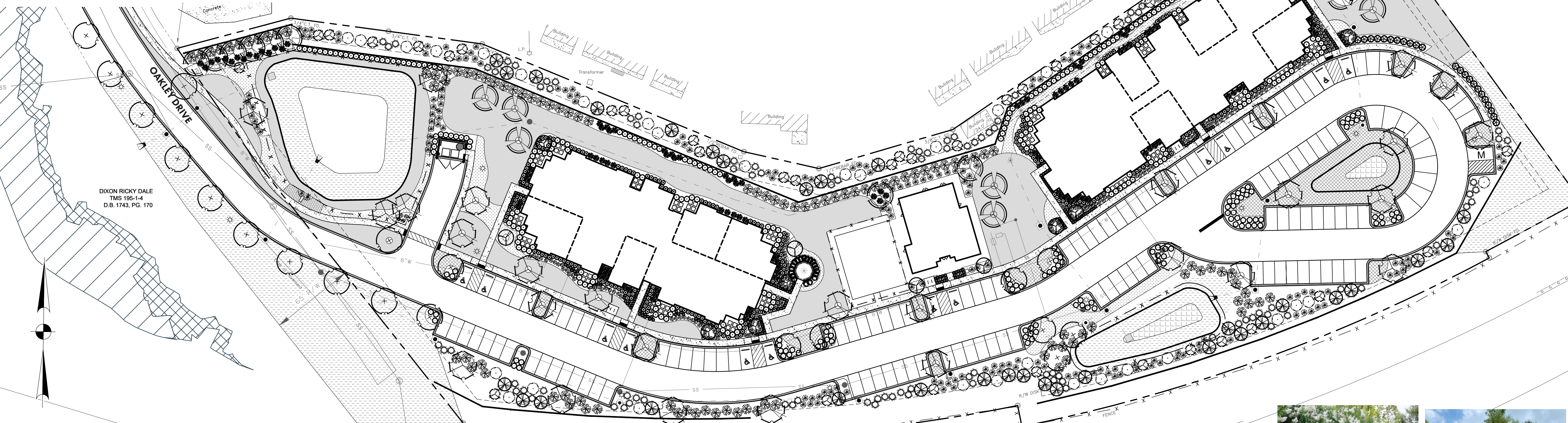
PINK MUHLY GRASS



YELLOW CONEFLOWER



JUNIPER



TREES

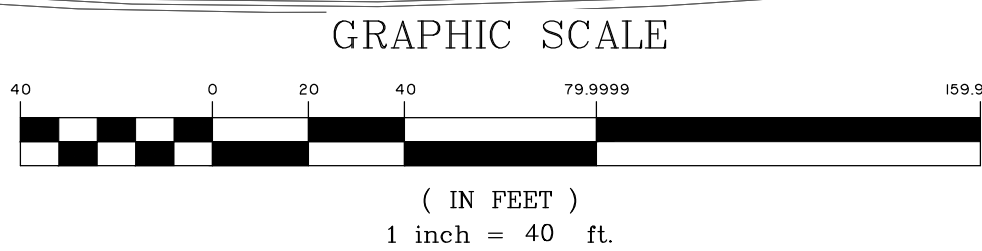
QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
22	ARO	Acer rubrum 'October Glory'	'October Glory' Red Maple	B & B OR CONT. : 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen
20	BNH	Betula nigra 'Heritage'	'Heritage' River Birch	B & B OR CONT. : 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen, multi-trunk, 3 trunk min
37	CCF	Cercis canadensis 'Forest Pansy'	Forest Pansy Redbud	B & B OR CONT. : 2" CAL. 6' - 8' HT.	AS SHOWN	Specimen, single trunk
101	IRH	Ilex x 'Conin' P.P.# 9486	Robin™ Red Holly	B & B OR CONT. : 2" CAL. 6' x 8' HT.	AS SHOWN	Specimen, Full to Ground & Unsheerd
12	LIN	Lagerstroemia indica 'Natchez'	'Natchez' Crape Myrtle	B & B OR CONT. : 2" CAL. 6' x 8' HT.	AS SHOWN	Specimen, multi-trunk, 3 trunk min
34	LS	Liquidambar styraciflua 'Rotundiloba'	Fruitless Sweetgum	B & B OR CONT. : 3" CAL. 8' - 10' HT.	AS SHOWN	Specimen
32	PP	Pinus taeda	Loblolly Pine	B & B OR CONT. : 3" CAL. 8' - 10' HT.	AS SHOWN	Full, specimen
28	QP	Quercus phellos	Willow Oak	B & B OR CONT. : 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen

SHRUBS

QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
135	CDC	Camellia x 'Coral Delight'	Coral Delight Camellia	7 GAL. : 36" x 36"	AS SHOWN	Full
103	CGD-P	Distylium 'Cinnamon Girl' PP #027631	Cinnamon Girl Distylium	CONT. 18" X 18"	AS SHOWN	Full
23	ILBN	Ilex cornuta 'Burfordii Nano'	Dwarf Burford Holly	5 GAL. : 36" x 36"	AS SHOWN	Full
169	ILCA	Ilex cornuta 'Carissa'	Carissa Holly	7 GAL. : 36" x 36"	AS SHOWN	Full
102	JUNP	Juniperus x pfitzeriana	Pfitzer Juniper	5 GAL. : 48" O.A. HT.	AS SHOWN	Full
19	LOR	Loropetalum chinense 'Rubrum'	Evergreen Loropetalum	3 GAL. : 18" X 18"	AS SHOWN	Full to ground and well formed
260	POPD	Podocarpus macrophyllus	Podocarpus	CONT. : 12" X 24"	AS SHOWN	Full to ground and well formed
195	RHCD	Rhododendron 'Coral'	Autumn Coral Encore Azalea	CONT. : 18" X 18"	AS SHOWN	Full to ground and well formed
249	VBMS	Viburnum Obovatum 'Mrs. Schiller's Delight'	Viburnum Mrs. Schiller's Delight	CONT. : 18" X 18"	AS SHOWN	Full to ground and well formed

ORNAMENTAL GRASSES AND GROUNDCOVERS

QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
35,000 SF	SOD	Eremochloa ophiuroides	Centipede Grass	----	----	Dense roots
1,500 SF	WETM	Mix 129 Region 4	Southern Wetland Meadow Mix			Hydroseed by Roundstone Native Seed
33,500 SF	SEED	Mix 199 Region 4	Steep Slope Stabilization Native Mix			Hydroseed by Roundstone Native Seed
716	MUHC	Muhlenbergia capillaris	Pink Muhly Grass	CONT. : 3 GAL	3'	Full and well formed
221	RUD	Rudbeckia fulgida 'Goldstrum'	Yellow Coneflower	3 GAL 18" X 18"	AS SHOWN	Full
815	SPOR	Sporobolus heterolepis	Prairie dropseed	CONT. : 3 GAL	3'	Full and well formed



RIVER BIRCH



FRUITLESS SWEETGUM



WILLOW OAK



LOBLOLLY PINE



HOLLY



CAPE MYRTLE



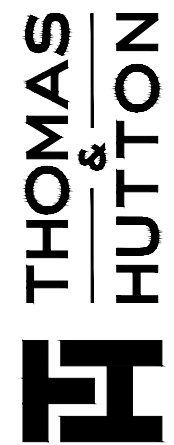
BALD CYPRESS



RED MAPLE



REDBUD



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SCHAUMBER DEVELOPMENT, LLC
CITY OF GREENVILLE, SC

THE RILEY OVERBROOK

PLANT SCHEDULE

JOB NO:	J-29240.0000
DATE:	01/20/22
DRAWN:	JAS
REVIEWED:	JAC
DESIGNED:	JAS
APPROVED:	JLG
SCALE:	1" = 40'

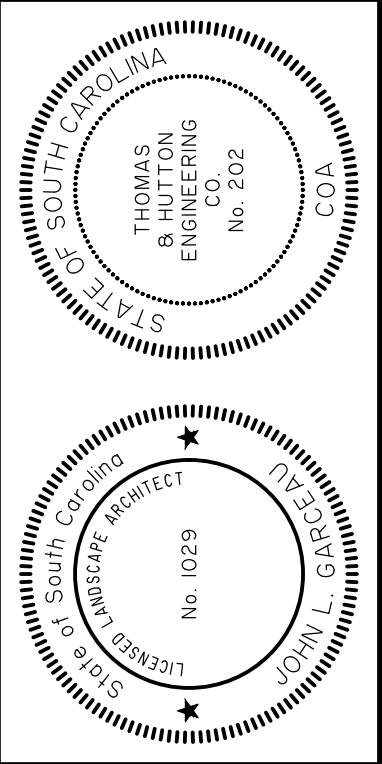
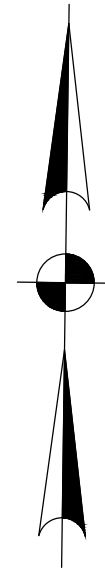
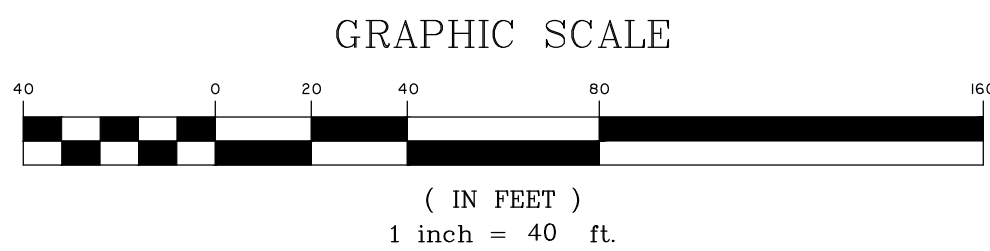
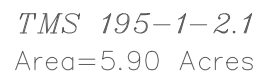
L3.1

TREES

SHRUBS

ORNAMENTAL GRASSES AND GROUNDCOVERS

N/F SALVADOR
TMS 195-1-7
D.B. 2160, PG. 276

[illegible]

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SCHAUMBER DEVELOPMENT, LLC
CITY OF GREENVILLE, SC

THE RILEY OVERBROOK

OVERALL LANDSCAPE PLAN

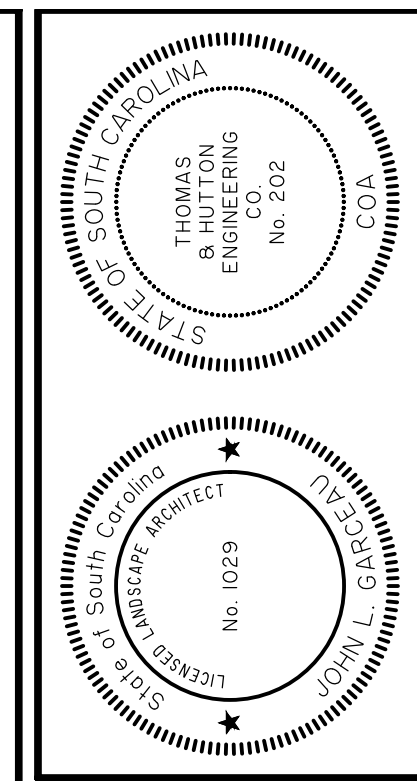
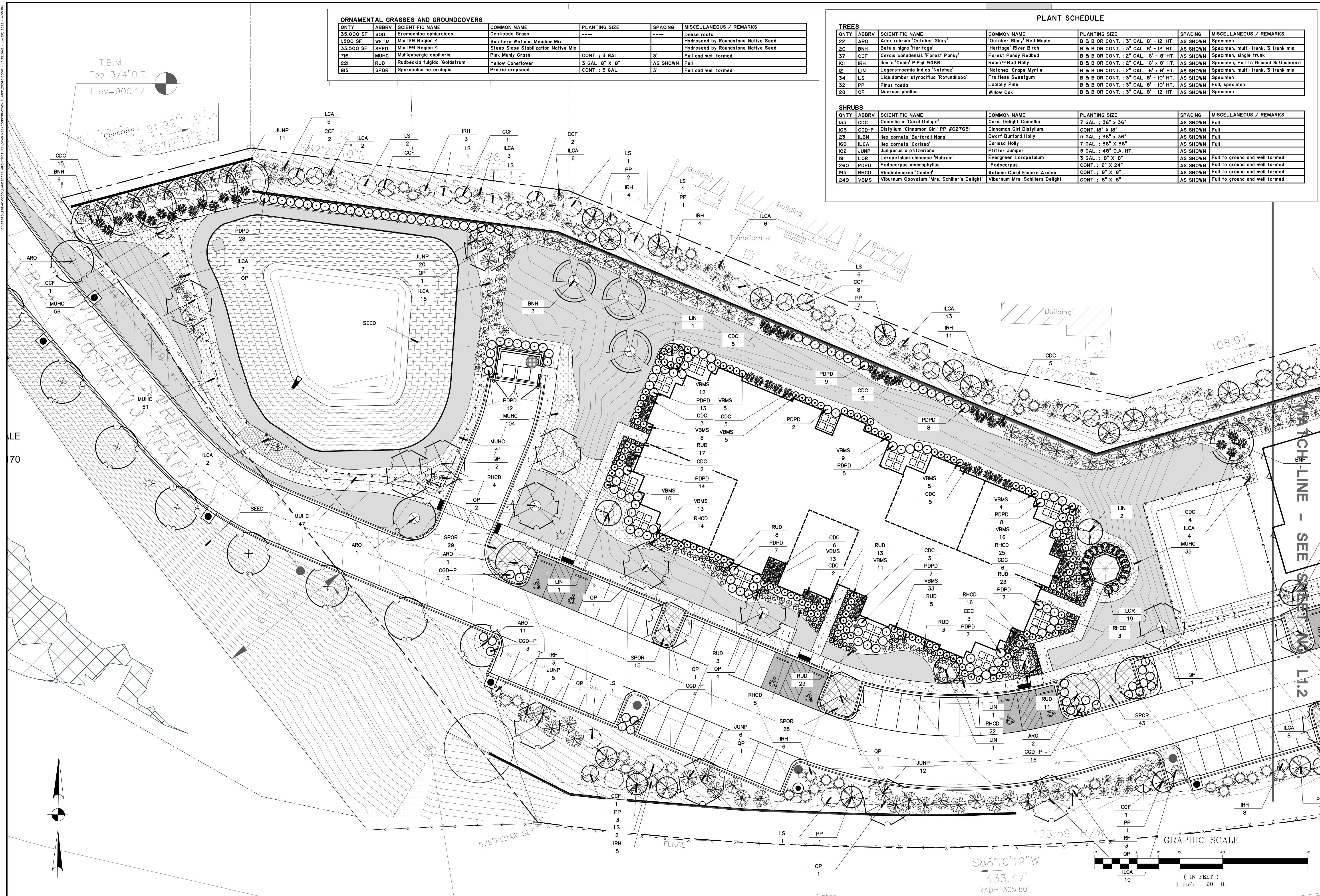
JOB NO:	J-29240.0000
DATE:	1/20/2022
DRAWN:	JAS
DESIGNED:	JAS
REVIEWED:	JAC
APPROVED:	JLG
SCALE:	1" = 40'

L1.0

QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
35,000 SF	SOD	Eremochloa ophiuroides	Centipede Grass	----	----	Dense roots
1,500 SF	WETM	Mix 129 Region 4	Southern Wetland Meadow Mix			Hydroseeded by Roundstone Native Seed
33,500 SF	SEED	Mix 199 Region 4	Steep Slope Stabilization Native Mix			Hydroseeded by Roundstone Native Seed
716	MUHC	Muhlenbergia capillaris	Pink Muhly Grass	CONT. : 3 GAL	3'	Full and well formed
221	RUD	Rudbeckia fulgida 'Goldstrum'	Yellow Coneflower	3 GAL 18" X 18"	AS SHOWN	Full
815	SPOR	Sporobolus heterolepis	Prairie dropseed	CONT. : 3 GAL	3'	Full and well formed

QNTY	ABBRV	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
22	ARO	<i>Acer rubrum</i> 'October Glory'	'October Glory' Red Maple	B B B OR CONT.; 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen
20	BNH	<i>Salix nigra</i> 'Hortigo'	'Hortigo' River Birch	B B B OR CONT.; 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen, multi-trunk, 3 trunk min
20	BNH	<i>Corylus canadensis</i> 'Forest Pansy'	Forest Pansy Redbud	B B B OR CONT.; 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen, single trunk
37	IRF	<i>Ilex x 'Conin'</i> P# 9486	'Robin' Red Holly	B B B OR CONT.; 2" CAL. 6' x 8' HT.	AS SHOWN	Specimen, Full to Ground & Unsheared
12	LIN	<i>Lagerstroemia indica</i> 'Natchez'	'Natchez' Crape Myrtle	B B B OR CONT.; 2" CAL. 6' x 8' HT.	AS SHOWN	Specimen, multi-trunk, 3 trunk min
34	LS	<i>Liquidambar styraciflua</i> 'Rotundiloba'	Frutless Sweetgum	B B B OR CONT.; 3" CAL. 8' - 10' HT.	AS SHOWN	Specimen
32	PP	<i>Pinus taeda</i>	Loblolly Pine	B B B OR CONT.; 3" CAL. 8' - 10' HT.	AS SHOWN	Full, specimen
28	QP	<i>Quercus phellos</i>	Willow Oak	B B B OR CONT.; 3" CAL. 8' - 12' HT.	AS SHOWN	Specimen

QNTY	AGDP	SCIENTIFIC NAME	COMMON NAME	PLANTING SIZE	SPACING	MISCELLANEOUS / REMARKS
135	CGD	<i>Coniolum x Coral Delight</i>	Coral Delight Coniolum	7 GAL., 36" x 36"	AS SHOWN	Full
136	AGB-V	Distylium 'Cinnamon Girl' PP #027631	Cinnamon Girl Distylium	CONT., 18" x 18"	AS SHOWN	Full
123	ILBN	<i>Ilex cornuta</i> 'Burfordii Nano'	Dwarf Burford Holly	5 GAL., 36" x 36"	AS SHOWN	Full
148	ILCA	<i>Ilex cornuta</i> 'Cariaco'	Cariaco Holly	7 GAL., 36" x 36"	AS SHOWN	Full
102	JUNP	<i>Juniperus x pfitzeriana</i>	Pfitzer Juniper	5 GAL., 48" x 48" H.T.	AS SHOWN	Full
198	LOR	<i>Loropetalum chinense</i> 'Rubrum'	Evergreen Loropetalum	3 GAL., 18" x 18"	AS SHOWN	Full to ground and well formed
240	POPD	<i>Podocarpus macrophyllum</i>	Podocarpus	CONT., 12" x 24"	AS SHOWN	Full to ground and well formed
195	RHCD	<i>Rhododendron</i> 'Conled'	Autumn Coral Encore Azalea	CONT., 18" x 18"	AS SHOWN	Full to ground and well formed
249	VBMS	<i>Viburnum Obovatum</i> 'Mrs. Schiller's Delight'	Viburnum Mrs. Schillers Delight	CONT., 18" x 18"	AS SHOWN	Full to ground and well formed

[illegible]

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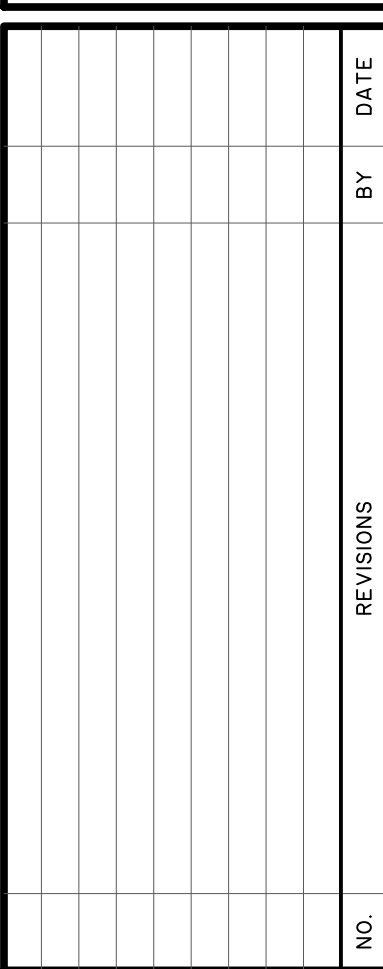
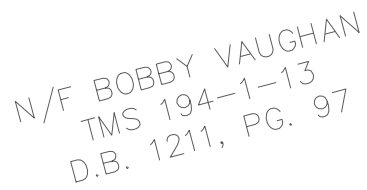
CITY OF GREENVILLE, SC

THE RILEY OVERBROOK

LANDSCAPE PLAN

JOB NO: J-29240.0000
DATE: 1/20/2022
DRAWN: JAS
DESIGNED: JAS
REVIEWED: JAC
APPROVED: JLG
SCALE: 1" = 20'

L1.1



SCHAUMBER DEVELOPMENT, LLC
CITY OF GREENVILLE, SC

THE RILEY OVERBROOK

LANDSCAPE PLAN

L1.2

EXISTING APARTMENTS

FFE: 954.50'

PROPOSED APARTMENTS

25'-0"
25'-0" BUFFER

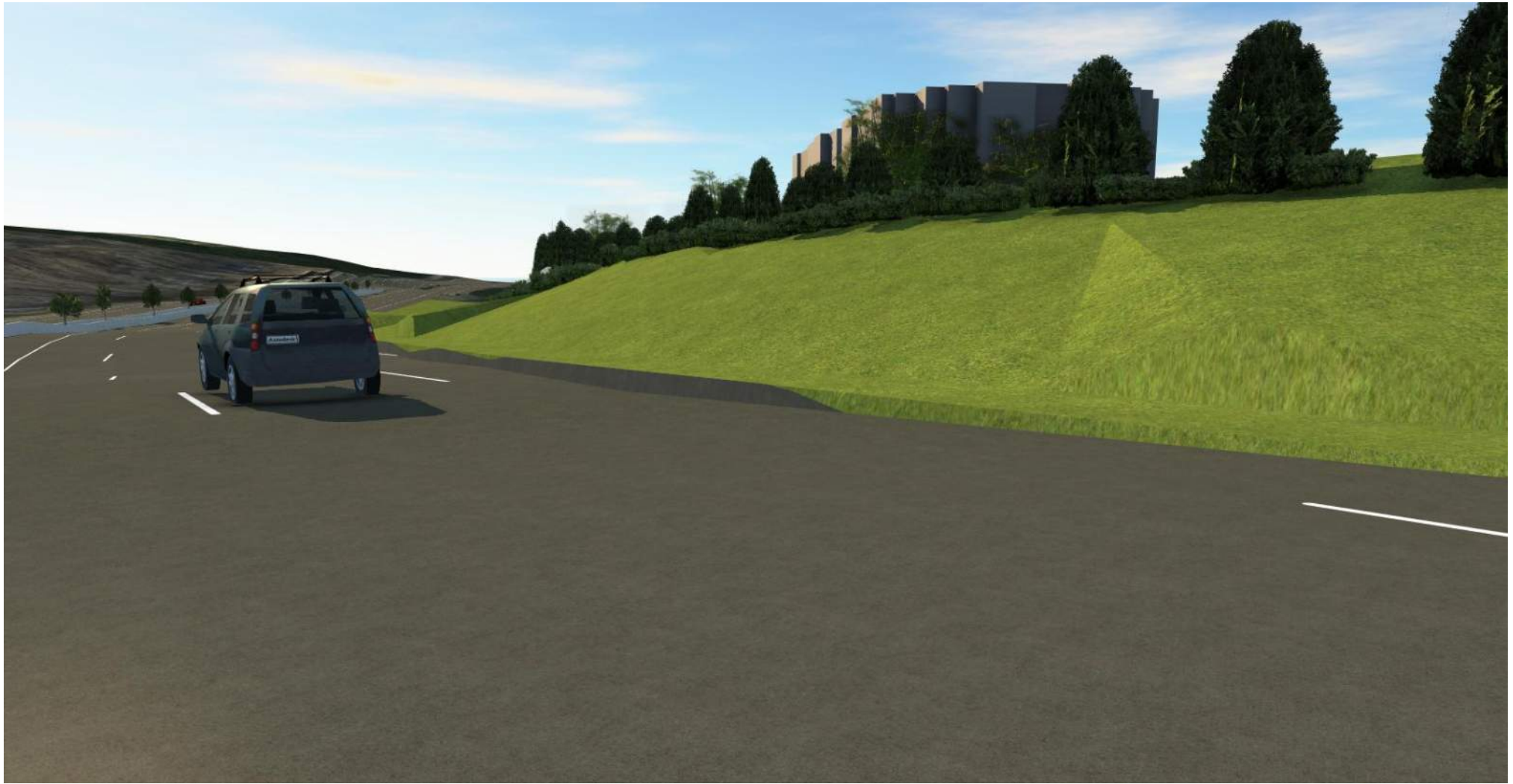
RETAINING WALL

PROPERTY LINE

FFE: 943.50'

52'-3" Highest Point of Roof

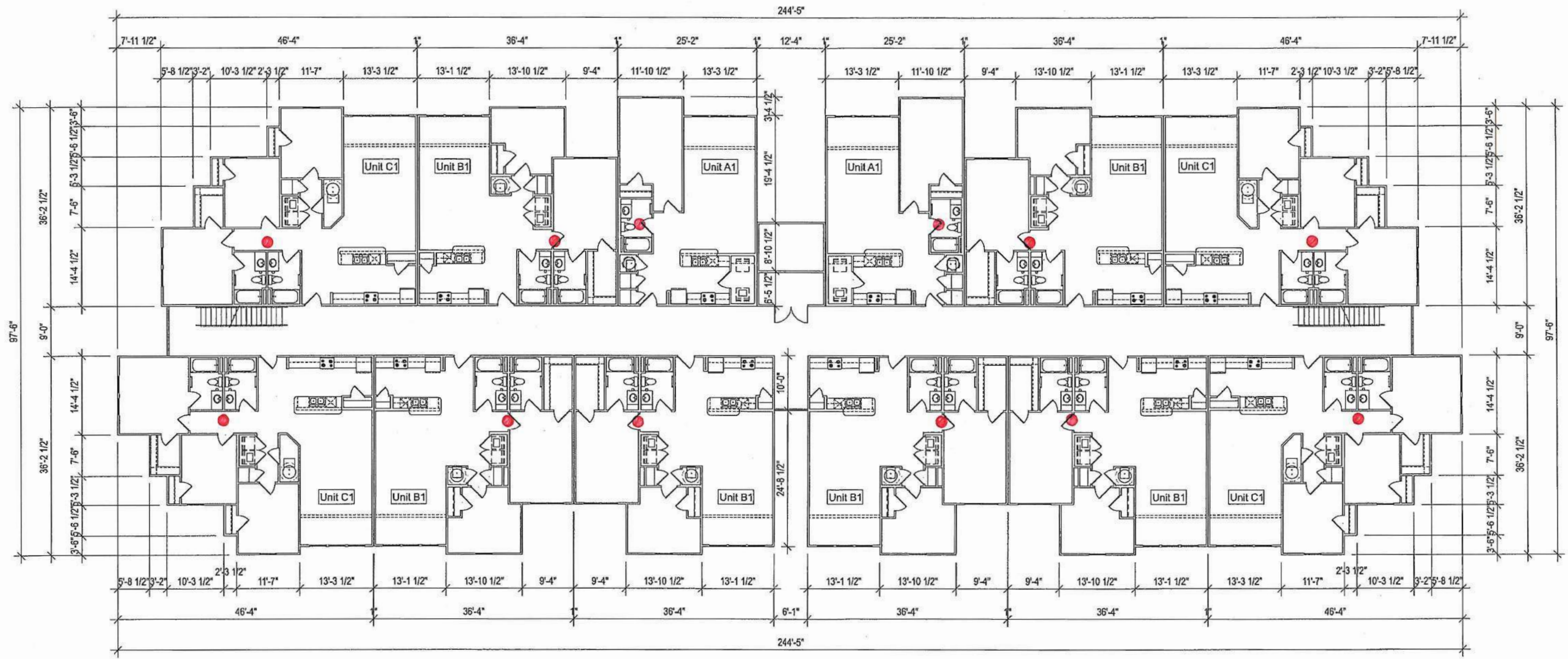






PVC vents painted to match roof

● Roof Vent Location



1 BUILDING 1 FOURTH FLOOR PLAN
SCALE: 1/8" = 1'-0"
Total Square Footage: 16,958 SF
Total Heated Square Footage: 13,940 SF

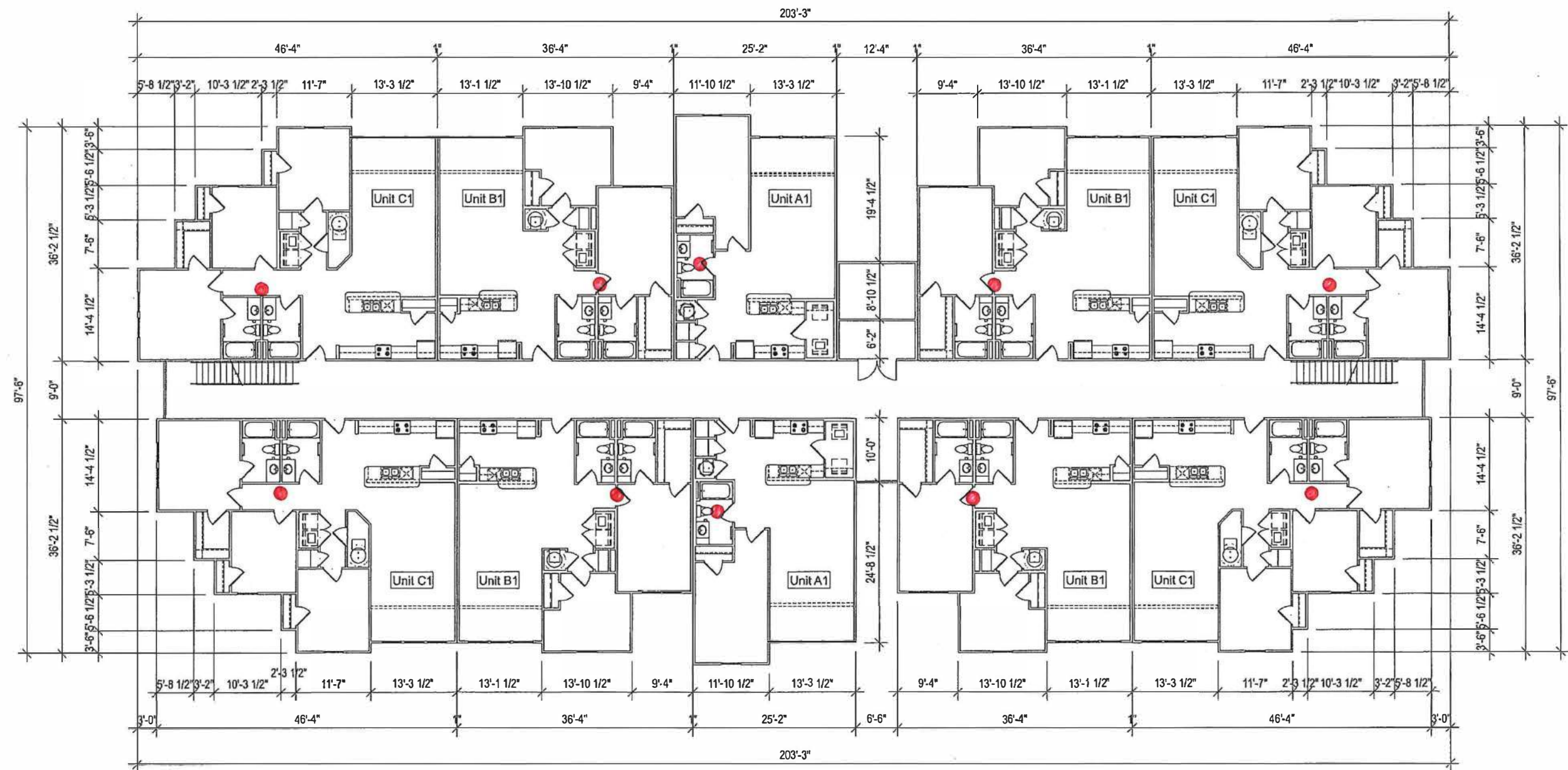


Progress Design Studio

DHD Riley, LLC	The Riley at Overbrook	Greenville, South Carolina
----------------	------------------------	----------------------------

a Family Apartment Community

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1 BUILDING 2 FOURTH FLOOR PLAN
SCALE: 1/8" = 1'-0"
Total Square Footage: 14,305 SF
Total Heated Square Footage: 11,634 SF

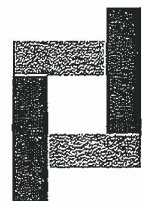
DHD Riley, LLC

The Riley at Overbrook

a Family Apartment Community

Greenville, South Carolina

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Progress Design Studio



Catalog #: _____ Project: _____

Prepared By: _____ Date: _____ Type: _____

Mirada Medium (MRM)

Outdoor LED Area Light



IP66 IK08



OVERVIEW

Lumen Package	7,000 - 48,000
Wattage Range	48 - 401
Efficacy Range (LPW)	117 - 160
Weight lbs(kg)	30 (13.6)

QUICK LINKS

[Ordering Guide](#)[Performance](#)[Photometrics](#)[Dimensions](#)

FEATURES & SPECIFICATIONS

Construction

- Rugged die-cast aluminum housing contains factory prewired driver and optical unit. Cast aluminum wiring access door located underneath.
- Designed to mount to square or round poles.
- Fixtures are finished with LSI's DuraGrip® polyester powder coat finishing process. The DuraGrip finish withstands extreme weather changes without cracking or peeling. Other standard LSI finishes available. Consult factory.
- Shipping weight: 37 lbs in carton.

Optical System

- State-of-the-Art one piece silicone optic sheet delivers industry leading optical control with an integrated gasket to provide IP66 rated sealed optical chamber in 1 component.
- Proprietary silicone refractor optics provide exceptional coverage and uniformity in IES Types 2, 3, 5W, FT, FTA and AM.
- Silicone optical material does not yellow or crack with age and provides a typical light transmittance of 93%.
- Zero uplight.
- Available in 5000K, 4000K, and 3000K color temperatures per ANSI C78.377. Also Available in Phosphor Converted Amber with Peak intensity at 610nm.
- Minimum CRI of 70.
- Integral louver (IL) and house-side shield (IH) options available for improved backlight control without sacrificing street side performance. See page 3 for more details.

Electrical

- High-performance programmable driver features over-voltage, under-voltage, short-circuit and over temperature protection. Custom lumen and wattage packages available.
- 0-10V dimming (10% - 100%) standard.
- Standard Universal Voltage (120-277 Vac) Input 50/60 Hz or optional High Voltage (347-480 Vac).
- L80 Calculated Life: >100k Hours (See Lumen Maintenance on Page 5)
- Total harmonic distortion: <20%
- Operating temperature: -40°C to +50°C (-40°F to +122°F). 42L and 48L lumen packages rated to +40°C.
- Power factor: >.90
- Input power stays constant over life.
- Field replaceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).
- High-efficacy LEDs mounted to metal-core circuit board to maximize heat dissipation
- Components are fully encased in potting material for moisture resistance. Driver complies with FCC standards. Driver and key electronic components can easily be accessed.

Controls

- Optional integral passive infrared Bluetooth™ motion and photocell sensor (see page 9 for more details). Fixtures operate independently and can be commissioned via iOS or Android configuration app
- LSI's AirLink™ wireless control system options reduce energy and maintenance costs while optimizing light quality 24/7. (see page 9 for more details).

Installation

- Designed to mount to square or round poles.
- A single fastener secures the hinged door, underneath the housing and provides quick & easy access to the electrical compartment.
- Included terminal block accepts up to 12 ga. wire.
- Utilizes LSI's traditional 3" drill pattern B3 for easy fastening of LSI products. (See drawing on page 9)

Warranty

- LSI LED Fixtures carry a 5-year warranty.

Listings

- Listed to UL 1598 and UL 8750.
- Meets Buy American Act requirements.
- IDA compliant; with 3000K color temperature selection.
- Title 24 Compliant; see local ordinance for qualification information.
- Suitable for wet Locations.
- IP66 rated Luminaire per IEC 60598.
- 3G rated for ANSI C136.31 high vibration applications are qualified.
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.
- Patented Silicone Optics (US Patent NO. 10,816,165 B2)
- IK08 rated luminaire per IEC 60662 mechanical impact code

Specifications and dimensions subject to change without notice.





Mirada Medium Outdoor LED Area Light

ORDERING GUIDE

[Back to Quick Links](#)TYPICAL ORDER EXAMPLE: **MRM LED 36L SIL FTA UNV DIM 50 70CRI ALSCS04 BRZ IL**

Luminaire Prefix	Light Source	Lumen Package	Light Output	Distribution	Orientation ²	Voltage	Driver
MRM - Mirada	LED	7L - 7,000 lms 9L - 9,000 lms 12L - 12,000 lms 18L - 18,000 lms 24L - 24,000 lms 30L - 30,000 lms 36L - 36,000 lms 42L - 42,000 lms 48L - 48,000 lms Custom Lumen Packages ¹	SIL - Silicone	2 - Type 2 3 - Type 3 5W - Type 5 Wide FT - Forward Throw FTA - Forward Throw Automotive AM - Automotive Merchandise	(blank) - standard L- Optics rotated left 90° R - Optics rotated right 90°	UNV - Universal Voltage (120-277V) HV - High Voltage (347-480V)	DIM - 0-10V Dimming (0-10%)
Color Temp		Color Rendering		Finish		Options	
50 - 5,000 CCT 40 - 4,000 CCT 30 - 3,000 CCT AMB - Phosphor Converted Amber ¹²		70CRI - 70 CRI		BLK - Black BRZ - Dark Bronze GMG - Gun Metal Gray GPT - Graphite MSV - Metallic Silver PLP - Platinum Plus SVG - Satin Verde Green WHT - White		(Blank) - None IH - Integral Houseside Shield ² IL - Integral Louver (Sharp Spill Light Cutoff) ²	
Controls (Choose One)							
(Blank) - None				Stand-Alone Controls EXT - 0-10v Dimming leads extended to housing exterior CR7P - 7 Pin Control Receptacle ANSI C136.41 ⁶ IMSBT1- Integral Bluetooth™ Motion and Photocell Sensor (8-24' MH) ⁵ IMSBT2- Integral Bluetooth™ Motion and Photocell Sensor (25-40' MH) ⁵		Lutron Limelight Controls LLC – LimeLight Integral Wireless Radio Control by Lutron ⁴ LLCS1 – Limelight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 8-15' mt height ⁴ LLCS2 – Limelight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 16-30' mt height ⁴ LLCS3 – Limelight Integral Wireless Radio Control and PIR Motion/Daylight Sensor by Lutron 31-40' mt height ⁴	
Wireless Controls System ALSC - AirLink Synapse Control System ALSCH - AirLink Synapse Control System Host / Satellite ³ ALSCS02 - AirLink Synapse Control System with 12-20' Motion Sensor ALSCHS02 - AirLink Synapse Control System Host / Satellite with 12-20' Motion Sensor ³ ALSCS04 - AirLink Synapse Control System with 20-40' Motion Sensor ALSCS04 - AirLink Synapse Control System Host / Satellite with 20-40' Motion Sensor ³ ALBCS1 - AirLink Blue Wireless Motion & Photo Sensor Controller (8-24' mounting height) ALBCS2 - AirLink Blue Wireless Motion & Photo Sensor Controller (25-40' mounting height)				Button Type Photocells PCI120 - 120V PCI208-277 - 208 -277V PCI347 - 347V			

Accessory Ordering Information⁷

Controls Accessories	
Description	Order Number ¹⁰
PC120 Photocell for use with CR7P option (120V) ⁸	122514
PC208-277 Photocell for use with CR7P option (208V, 240V, 277V) ⁸	122515
Twist Lock Photocell (347V) for use with CR7P ⁸	122516
Twist Lock Photocell (480V) for use with CR7P ⁸	1225180
AirLink 5 Pin Twist Lock Controller ⁸	661409
AirLink 7 Pin Twist Lock Controller ⁸	661410
PMOS24-24V Pole-Mounted Occupancy Sensor (24V)	663284CLR
Shorting Cap for use with CR7P	149328

Fusing Options ¹¹		Shielding Options	
Description	Order Number		
Single Fusing (120V)	See Fusing Accessory Guide	Mirada Small	See Shielding Guide
Single Fusing (277V)		Mirada Medium	
Double Fusing (208V, 240V)		Mirada Large	
Double Fusing (480V)		Zone Medium	
Double Fusing (347V)		Zone Large	
		Slice Medium	

Mounting Accessories ⁹	
Description	Order Number ¹⁰
Universal Mounting Bracket	684616CLR
Adjustable Slip Fitter (2" - 2 3/8" Tenon)	688138CLR
Horizontal Slip Fitter (2" - 2 3/8" Tenon)	652761CLR
Quick Mount Pole Bracket (Square Pole)	687073CLR
Quick Mount Pole Bracket (4-5" Round Pole)	689903CLR
15 Tilt Quick Mount Pole Bracket (Square Pole)	688003CLR
15 Tilt Quick Mount Pole Bracket (4-5" Round Pole)	689905CLR
Wall Mount Bracket	382132CLR
Wood Pole Bracket (6" Minimum Pole Diameter)	751219CLR

Miscellaneous Accessories	
Description	Order Number
Integral Louver/Shield	690981
Integral House Side Shield	743415
10' Linear Bird Spike Kit (3' Recommended per Luminaire)	751632

FOOTNOTES:

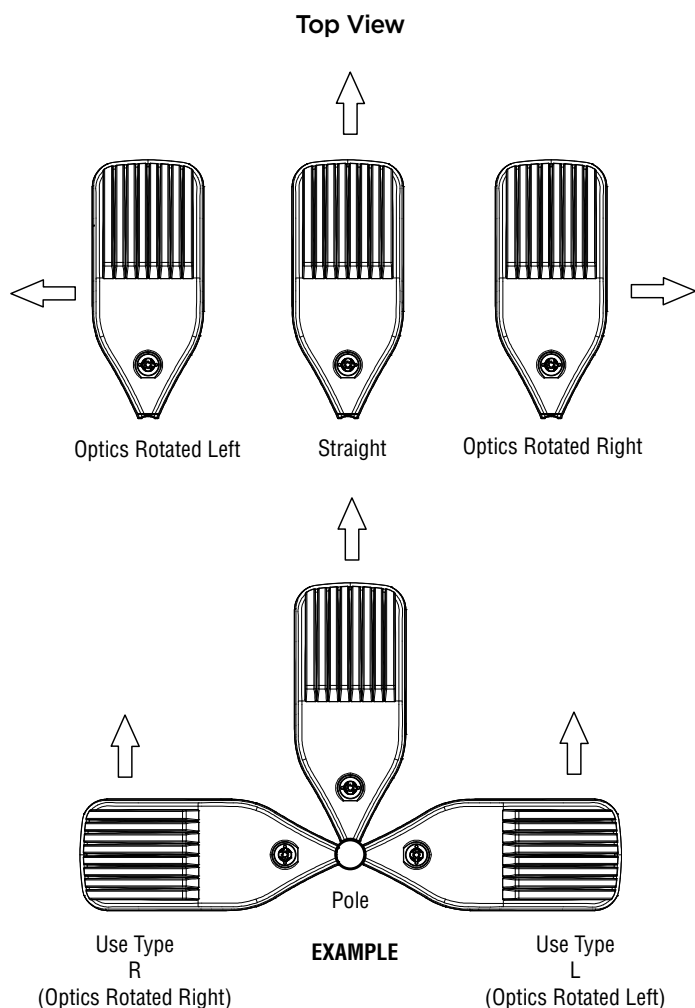
- Custom lumen and wattage packages available, consult factory. Values are within industry standard tolerances but not DLC listed.
- Not available with 5W distribution
- Consult Factory for availability.
- Not available in HV.
- IMSBT is field configurable via the LSI app that can be downloaded from your smartphone's native app store.
- Control device or shorting cap must be ordered separately. See Accessory Ordering Information.
- Accessories are shipped separately and field installed.
- Factory installed CR7P option required. See Options.
- "CLR" denotes finish. See Finish options.
- Only available with ALSC/ALSCH control options.
- Fusing must be located in hand hole of pole. See [Fusing Accessory Guide](#) for compatibility.
- Only available in 9L and 12L Lumen Packages. Consult factory for lead time and availability.





Mirada Medium Outdoor LED Area Light

OPTICS ROTATION



ACCESSORIES/OPTIONS

Integral Louver (IL) and House-Side Shield (IH)

Accessory louver and shield available for improved backlight control without sacrificing street side performance. LSI's Integral Louver (L) and Integral House-Side Shield (IH) options deliver backlight control that significantly reduces spill light behind the poles for applications with pole locations close to adjacent properties. The design maximizes forward reflected light while reducing glare, maintaining the optical distribution selected, and most importantly eliminating light trespass. Both options rotate with the optical distribution.

Luminaire Shown with IMSBT & IL/IH Options



7 Pin Photoelectric Control

7-pin ANSI C136.41-2013 control receptacle option available for twist lock photocontrols or wireless control modules. Control accessories sold separately. Dimming leads from the receptacle will be connected to the driver dimming leads (Consult factory for alternate wiring).

Luminaire Shown with PCR 7P





Mirada Medium Outdoor LED Area Light

[Back to Quick Links](#)

PERFORMANCE

Delivered Lumens*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
7L	2	70	7560	157	B2-U0-G2	7560	157	B2-U0-G2	7560	157	B2-U0-G2	48
	3		7616	159	B1-U0-G2	7616	159	B1-U0-G2	7616	159	B1-U0-G2	
	5W		7292	152	B3-U0-G1	7292	152	B3-U0-G1	7292	152	B3-U0-G1	
	FT		7562	158	B2-U0-G2	7562	158	B2-U0-G2	7562	158	B2-U0-G2	
	FTA		7595	158	B2-U0-G2	7595	158	B2-U0-G2	7595	158	B2-U0-G2	
	AM		7687	160	B1-U0-G1	7687	160	B1-U0-G1	7687	160	B1-U0-G1	
9L	2	70	9853	159	B2-U0-G2	9853	159	B2-U0-G2	9853	159	B2-U0-G2	62
	3		9926	160	B2-U0-G2	9926	160	B2-U0-G2	9926	160	B2-U0-G2	
	5W		9504	153	B3-U0-G2	9504	153	B3-U0-G2	9504	153	B3-U0-G2	
	FT		9856	159	B2-U0-G3	9856	159	B2-U0-G3	9856	159	B2-U0-G3	
	FTA		9900	160	B2-U0-G2	9900	160	B2-U0-G2	9900	160	B2-U0-G2	
	AM		10019	162	B2-U0-G1	10019	162	B2-U0-G1	10019	162	B2-U0-G1	
12L	2	70	13135	155	B3-U0-G2	13135	155	B3-U0-G2	13135	155	B3-U0-G2	85
	3		13232	156	B2-U0-G2	13232	156	B2-U0-G2	13232	156	B2-U0-G2	
	5W		12669	149	B4-U0-G2	12669	149	B4-U0-G2	12669	149	B4-U0-G2	
	FT		13138	155	B2-U0-G3	13138	155	B2-U0-G3	13138	155	B2-U0-G3	
	FTA		13196	155	B2-U0-G2	13196	155	B2-U0-G2	13196	155	B2-U0-G2	
	AM		13355	157	B2-U0-G2	13355	157	B2-U0-G2	13355	157	B2-U0-G2	
18L	2	70	19318	143	B3-U0-G3	19318	143	B3-U0-G3	19318	143	B3-U0-G3	135
	3		19461	144	B3-U0-G3	19461	144	B3-U0-G3	19461	144	B3-U0-G3	
	5W		18633	138	B4-U0-G2	18633	138	B4-U0-G2	18633	138	B4-U0-G2	
	FT		19324	143	B3-U0-G3	19324	143	B3-U0-G3	19324	143	B3-U0-G3	
	FTA		19408	144	B3-U0-G3	19408	144	B3-U0-G3	19408	144	B3-U0-G3	
	AM		19641	145	B3-U0-G2	19641	145	B3-U0-G2	19641	145	B3-U0-G2	
24L	2	70	25957	147	B4-U0-G3	25957	147	B4-U0-G3	25957	147	B4-U0-G3	176
	3		26149	149	B3-U0-G4	26149	149	B3-U0-G4	26149	149	B3-U0-G4	
	5W		25037	142	B5-U0-G3	25037	142	B5-U0-G3	25037	142	B5-U0-G3	
	FT		25964	148	B3-U0-G4	25964	148	B3-U0-G4	25964	148	B3-U0-G4	
	FTA		26077	148	B3-U0-G3	26077	148	B3-U0-G3	26077	148	B3-U0-G3	
	AM		26393	150	B3-U0-G2	26393	150	B3-U0-G2	26393	150	B3-U0-G2	
30L	2	70	32417	140	B4-U0-G3	32417	140	B4-U0-G3	32417	140	B4-U0-G3	232
	3		32656	141	B3-U0-G4	32656	141	B3-U0-G4	32656	141	B3-U0-G4	
	5W		31267	135	B5-U0-G3	31267	135	B5-U0-G3	31267	135	B5-U0-G3	
	FT		32424	140	B3-U0-G4	32424	140	B3-U0-G4	32424	140	B3-U0-G4	
	FTA		32566	140	B4-U0-G3	32566	140	B4-U0-G3	32566	140	B4-U0-G3	
	AM		32960	142	B3-U0-G3	32960	142	B3-U0-G3	32960	142	B3-U0-G3	
36L	2	70	38275	133	B4-U0-G4	38275	133	B4-U0-G4	38275	133	B4-U0-G4	288
	3		38557	134	B4-U0-G5	38557	134	B4-U0-G5	38557	134	B4-U0-G5	
	5W		36917	128	B5-U0-G4	36917	128	B5-U0-G4	36917	128	B5-U0-G4	
	FT		38283	133	B4-U0-G5	38283	133	B4-U0-G5	38283	133	B4-U0-G5	
	FTA		38450	134	B4-U0-G4	38450	134	B4-U0-G4	38450	134	B4-U0-G4	
	AM		38916	135	B3-U0-G3	38916	135	B3-U0-G3	38916	135	B3-U0-G3	





Mirada Medium Outdoor LED Area Light

PERFORMANCE (CONT.)

Delivered Lumens*												
Lumen Package	Distribution	CRI	3000K CCT			4000K CCT			5000K CCT			Wattage
			Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	Delivered Lumens	Efficacy	BUG Rating	
42L	2	70	44118	125	B5-U0-G4	44118	125	B5-U0-G4	44118	125	B5-U0-G4	354
	3		44444	126	B4-U0-G5	44444	126	B4-U0-G5	44444	126	B4-U0-G5	
	5W		42555	120	B5-U0-G4	42555	120	B5-U0-G4	42555	120	B5-U0-G4	
	FT		44130	125	B4-U0-G5	44130	125	B4-U0-G5	44130	125	B4-U0-G5	
	FTA		44322	125	B4-U0-G4	44322	125	B4-U0-G4	44322	125	B4-U0-G4	
	AM		44859	127	B4-U0-G3	44859	127	B4-U0-G3	44859	127	B4-U0-G3	
48L	2	70	48795	122	B5-U0-G4	48795	122	B5-U0-G4	48795	122	B5-U0-G4	401
	3		49156	123	B4-U0-G5	49156	123	B4-U0-G5	49156	123	B4-U0-G5	
	5W		47066	117	B5-U0-G4	47066	117	B5-U0-G4	47066	117	B5-U0-G4	
	FT		48809	122	B4-U0-G5	48809	122	B4-U0-G5	48809	122	B4-U0-G5	
	FTA		49021	122	B5-U0-G4	49021	122	B5-U0-G4	49021	122	B5-U0-G4	
	AM		49615	124	B4-U0-G3	49615	124	B4-U0-G3	49615	124	B4-U0-G3	

ELECTRICAL DATA (AMPS)*						
Lumens	120V	208V	240V	277V	347V	480V
7L	0.40	0.23	0.20	0.17	0.14	0.10
9L	0.52	0.30	0.26	0.22	0.18	0.13
12L	0.71	0.41	0.35	0.31	0.24	0.18
18L	1.13	0.65	0.56	0.49	0.39	0.28
24L	1.47	0.85	0.73	0.64	0.51	0.37
30L	1.93	1.12	0.97	0.84	0.67	0.48
36L	2.40	1.38	1.20	1.04	0.83	0.60
42L	2.95	1.70	1.48	1.28	1.02	0.74
48L	3.4A	1.9A	1.7A	1.5A	1.2A	0.8A

ELECTRICAL DATA - PHOSPHOR CONVERTED AMBER (AMPS)*							
Lumens	Watts	120V	208V	240V	277V	347V	480V
9L	74.3	0.6A	0.4A	0.3A	0.3A	0.2A	0.2A
12L	102.9	0.9A	0.5A	0.4A	0.4A	0.3A	0.2A

*Electrical data at 25°C (77°F). Actual wattage may differ by +/-10%

RECOMMENDED LUMEN MAINTENANCE ¹ (7-18L)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
0-50 C	100%	96%	92%	88%	84%

RECOMMENDED LUMEN MAINTENANCE ¹ (24-48L)					
Ambient	Initial ²	25h ²	50hr ²	75hr ²	100hr ²
0-40 C	100%	100%	97%	94%	92%

- Lumen maintenance values at 25C are calculated per TM-21 based on LM-80 data and in-situ testing.
- In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times the IESNA LM-80-08 total test duration for the device under testing.
- In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times the IESNA LM-80-08 total test duration for the device under testing.

DELIVERED LUMENS*					
Lumen Package	Distribution	Phosphor Converted Amber (Peak 610nm)			Wattage
		Delivered Lumens	Efficacy	BUG Rating	
9L	2	5848	80	B2-U0-G2	74
	2 - IL	3644	50	B0-U0-G1	
	3	6018	82	B1-U0-G2	
	3 - IL	4468	61	B0-U0-G2	
	5W	5471	74	B3-U0-G1	
	FT	5801	79	B1-U0-G2	
	FT - IL	3649	50	B0-U0-G1	
	FTA	5924	81	B1-U0-G1	
12L	FTA - IL	4243	58	B1-U0-G1	102
	2	7530	74	B2-U0-G2	
	2 - IL	4692	46	B0-U0-G1	
	3	7749	76	B1-U0-G2	
	3 - IL	5753	57	B0-U0-G2	
	5W	7045	69	B3-U0-G2	
	FT	7470	73	B2-U0-G2	
	FT - IL	4699	46	B0-U0-G2	
	FTA	7628	75	B2-U0-G2	
	FTA-IL	5464	54	B1-U0-G1	

*LEDs are frequently updated therefore values are nominal.





Mirada Medium Outdoor LED Area Light

PHOTOMETRICS

[Back to Quick Links](#)

Luminaire photometry has been conducted by a NVLAP accredited testing laboratory in accordance with IESNA LM-79-08. As specified by IESNA LM-79-08 the entire luminaire is tested as the source resulting in a luminaire efficiency of 100%.

See <https://www.lsicorp.com/product/mirada-medium/> for detailed photometric data.

MRM-LED-30L-SIL-2-40-70CRI

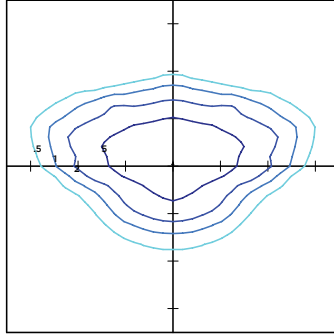
LUMINAIRE DATA

Type 2 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,416
Watts	232
Efficacy	140
IES Type	Type II - Short
BUG Rating	B4-U0-G3

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	4796	15%
Medium (30-60)°	19811	61%
High (60-80)°	7474	23%
Very High (80-90)°	335	1%
Uplight (90-180)°	0	0%
Total Flux	32416	100%

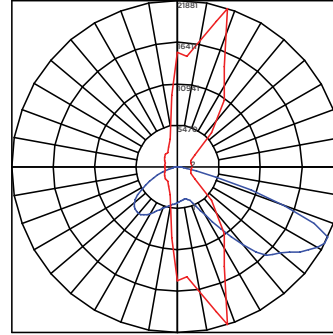
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



MRM-LED-30L-SIL-3-40-70CRI

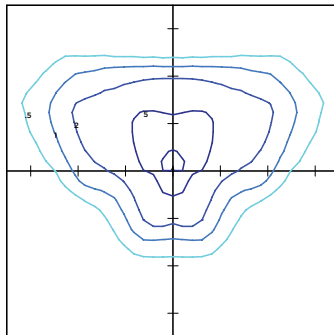
LUMINAIRE DATA

Type 3 Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,656
Watts	232
Efficacy	141
IES Type	Type III - Short
BUG Rating	B3-U0-G4

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	3385	10%
Medium (30-60)°	16250	50%
High (60-80)°	12430	38%
Very High (80-90)°	591	2%
Uplight (90-180)°	0	0%
Total Flux	32656	100%

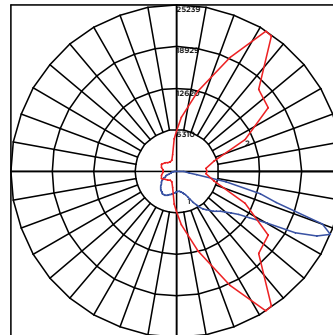
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



MRM-LED-30L-SIL-FT-40-70CRI

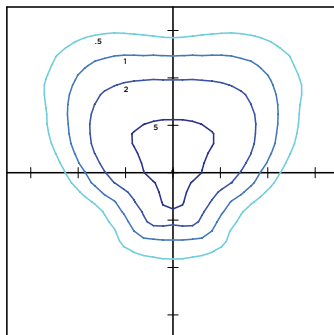
LUMINAIRE DATA

Type FT Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,424
Watts	232
Efficacy	140
IES Type	Type IV - Short
BUG Rating	B3-U0-G4

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	3952	12%
Medium (30-60)°	15505	48%
High (60-80)°	12279	38%
Very High (80-90)°	688	2%
Uplight (90-180)°	0	0%
Total Flux	32424	100%

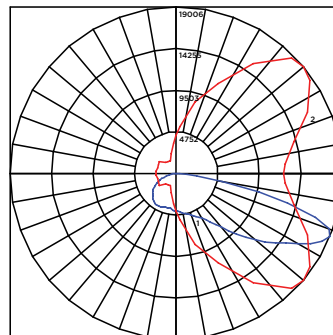
ISO FOOTCANDLE



20' Mounting Height/15' Grid Spacing

■ 20 FC ■ 10 FC ■ 5 FC ■ 2 FC

POLAR CURVE





Mirada Medium Outdoor LED Area Light

PHOTOMETRICS (CONT)

MRM-LED-30L-SIL-5W-40-70CRI

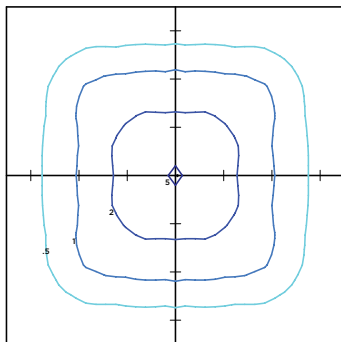
LUMINAIRE DATA

Type 5W Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	31,267
Watts	232
Efficacy	135
IES Type	Type VS - Short
BUG Rating	B5-U0-G3

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	3138	10%
Medium (30-60)°	13193	42%
High (60-80)°	14641	47%
Very High (80-90)°	296	1%
Uplight (90-180)°	0	0%
Total Flux	31267	100%

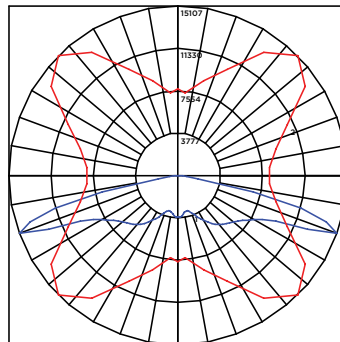
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



MRM-LED-30L-SIL-FTA-40-70CRI

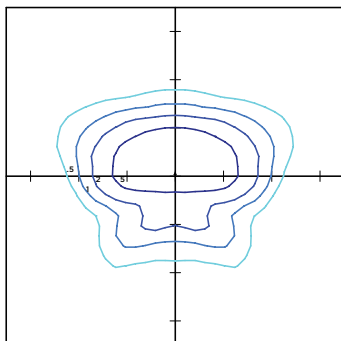
LUMINAIRE DATA

Type FTA Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,566
Watts	232
Efficacy	140
IES Type	Type VS - Short
BUG Rating	B4-U0-G3

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	6986	21%
Medium (30-60)°	19172	59%
High (60-80)°	5875	18%
Very High (80-90)°	534	2%
Uplight (90-180)°	0	0%
Total Flux	32566	100%

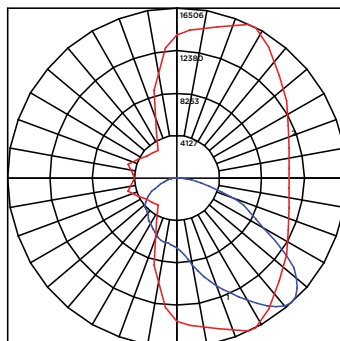
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE



MRM-LED-30L-SIL-AM-40-70CRI

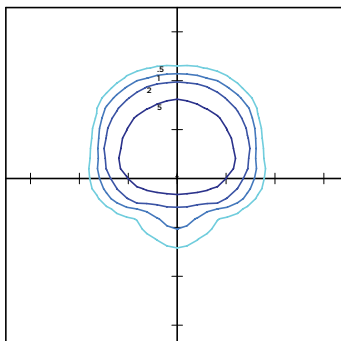
LUMINAIRE DATA

Type AM Distribution	
Description	4000 Kelvin, 70 CRI
Delivered Lumens	32,960
Watts	232
Efficacy	142
IES Type	Type III - Very Short
BUG Rating	B3-U0-G3

Zonal Lumen Summary

Zone	Lumens	%Luminaire
Low (0-30)°	6363	9%
Medium (30-60)°	22026	43%
High (60-80)°	4192	48%
Very High (80-90)°	379	1%
Uplight (90-180)°	0	0%
Total Flux	32960	100%

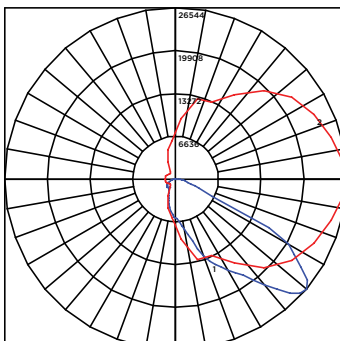
ISO FOOTCANDLE



25' Mounting Height/ 25' Grid Spacing

■ 5 FC ■ 2 FC ■ 1 FC ■ 0.5 FC

POLAR CURVE

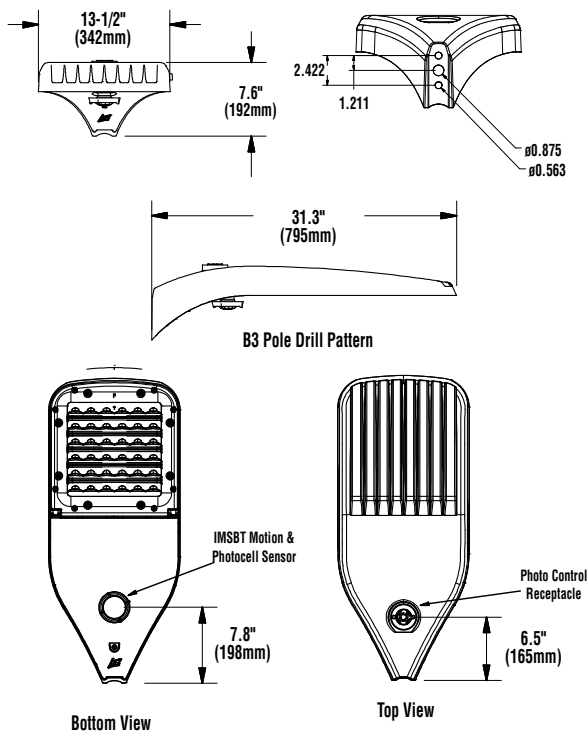




Mirada Medium Outdoor LED Area Light

[Back to Quick Links](#)

PRODUCT DIMENSIONS



LUMINAIRE EPA CHART - MRM									
Tilt Degree	0°	30°	45°		Tilt Degree	0°	30°	45°	
Single	0.5	1.5	1.9		T90°	1.0	2.5	2.8	
D180°	1.0	1.5	1.9		TN120°	1.0	3.3	3.9	
D90°	0.8	1.9	2.3		Q90°	1.0	2.5	2.8	

CONTROLS

AirLink Wireless Lighting Controller

The AirLink integrated controller is a California Title 24 compliant lighting controller that provides real-time light monitoring and control with utility-grade power monitoring. It includes a 24V sensor input and power supply to connect a sensor into the outdoor AirLink wireless lighting system. The wireless integrated controller is compatible with this fixture.

Click the link below to learn more details about AirLink.

<https://www.lsicorp.com/wp-content/uploads/documents/products/airlink-outdoor-specsheet.pdf>

Integral Bluetooth™ Motion and Photocell Sensor (IMSBT)

Slim low profile sensor provides multi-level control based on motion and/or daylight. Sensor controls 0-10 VDC LED drivers and is rated for cold and wet locations (-30° C to 70° C). Two unique PIR lenses are available and used based on fixture mounting height. All control parameters are adjustable via an iOS or Android App capable of storing and transmitting sensor profiles.

Click the link below to learn more details about IMSBT.

<https://www.lsicorp.com/wp-content/uploads/documents/products/imsbt-specsheet.pdf>

AirLink Blue

Wireless Bluetooth Mesh Outdoor Lighting Control System that provides energy savings, code compliance and enhanced safety/security for parking lots and parking garages. Three key components; Bluetooth wireless radio/sensor controller, Time Keeper and an iOS App. Capable of grouping multiple fixtures and sensors as well as scheduling time-based events by zone. Radio/Sensor Controller is factory integrated into Area/Site, Wall Mounted, Parking Garage and Canopy luminaires.

Click the link below to learn more details about AirLink Blue.

<https://www.lsicorp.com/product/airlink-blue/>





Mirada Medium Outdoor LED Area Light

POLES & BRACKETS

LSI offers a full line of poles and mounting accessories to complete your lighting assembly. Aluminum and steel in both square and round shafts. In addition, LSI offers round tapered, fluted and hinge based poles. Designed and engineered for durability and protected with our oven baked DuraGrip Protection System. Also available with our DuraGrip+ Protection system for unmatched corrosion resistance and an extended warranty. American made in our Ohio facility with industry leading lead times.

Click the link below to learn more details about poles & brackets.

<https://www.lsicorp.com/products/poles-brackets/>



BKA UMB CLR

The 3G rated UMB allows for seamless integration of LSI luminaires onto existing/ retrofit or new construction poles. The UMB was designed for square or round (tapered or straight) poles with two mounting hole spacings between 3.5" - 5".



BKA ASF CLR

The adjustable Slip Fitter is a 3G rated rugged die cast aluminum adapter to mount LSI luminaires onto a 2" iron pipe, 2 3/8 OD tenon. The Adjustable Slip Fitter can be rotated 180° allowing for tilting LSI luminaires up to 45° and 90° when using a vertical tenon.



BKS PQM15 CLR

The Pole Quick Mount Bracket allows for preset 15° up tilt of LSI luminaires for greater throw of light and increased vertical illumination as well as fast installation onto poles with LSI's 3" or 5" bolt pattern.



BKS PQMH CLR

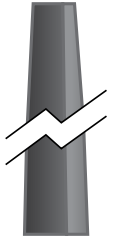
The Pole Quick Mount Bracket allows for lightning fast installation of LSI luminaires onto existing and new construction poles with LSI's B3 or B5 standard pole bolt patterns.



Square Pole
14'-39'



Round Pole
10'-30'



Tapered Pole
20'-39'



Outdoor Lighting

Traditional LED



Subject to variance from manufacturer. Contact us for region-specific details.

Illuminate pathways and residential communities with the energy-efficient Traditional LED. This Colonial lantern-style fixture will add style and charm to any neighborhood or park.

LED (Light Emitting Diode)	50 watts
--------------------------------------	----------

Mounting height	12'
------------------------	-----

Colors	Black Green
---------------	----------------

Poles	Style A, B, C, D, E, F
--------------	------------------------

For additional information, visit us at duke-energy.com/OutdoorLighting or call us toll free: 800.653.5307



BUILDING A SMARTER ENERGY FUTURESM

Outdoor Lighting

Traditional LED

Light source: LED (white)

Wattage: 50

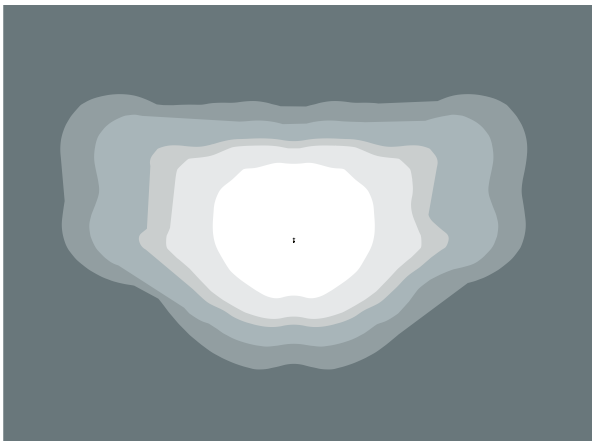
Lumens: 4,500

Light pattern: IESNA Type III (oval)

IESNA cutoff classification: Cutoff

Color temperature: 4,000K

Warm-up and restrike time: Instant on (no warm-up or restrike time)



light distribution pattern

Pole available:

Type	Mounting height	Color
Aluminum	12'	Black Green

Features

Little or no upfront capital cost

Design services by lighting professionals included

Maintenance included

Electricity included

Warranty included

One low monthly cost on your electric bill

Turnkey operation

Backed by over 100 years of experience

Benefits

Frees up capital for other projects

Meets industry standards and lighting ordinances

Eliminates high and unexpected repair bills

Less expensive than metered service

Worry-free

Convenience and savings for you

Provides hassle-free installation and service

A name you can trust today ... and tomorrow



WEDGE1 LED

Architectural Wall Sconce



Catalog
Number

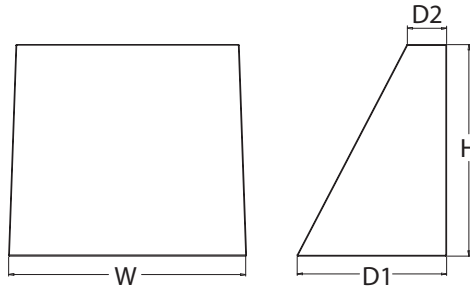
Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Specifications

Depth (D1): 5.5"
Depth (D2): 1.5"
Height: 8"
Width: 9"
Weight: 9 lbs
 (without options)



Introduction

The WEDGE1 LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean rectilinear design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing true site-wide solution.

WEDGE1 delivers up to 2,000 lumens with a soft, non-pixelated light source, creating a visually comfortable environment. The compact size of WEDGE1, with its integrated emergency battery backup option, makes it an ideal over-the-door wall-mounted lighting solution.

WEDGE LED Family Overview

Luminaire	Standard EM, 0°C	Cold EM, -20°C	Sensor	Lumens (4000K)					
				P1	P2	P3	P4	P5	P6
WEDGE1 LED	4W	--	--	1,200	2,000	--	--	--	--
WEDGE2 LED	10W	18W	Standalone / nLight	1,200	2,000	3,000	4,500	6,000	--
WEDGE3 LED	15W	18W	Standalone / nLight	7,500	8,500	10,000	12,000	--	--
WEDGE4 LED	--	--	Standalone / nLight	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

EXAMPLE: WEDGE1 LED P2 40K 80CRI VF MVOLT SRM PE DDBXD

Series	Package	Color Temperature	CRI	Distribution	Voltage	Mounting
WEDGE1 LED	P1	27K 2700K	80CRI	VF Visual comfort forward throw	MVOLT 347 ²	Shipped included SRM Surface mounting bracket ICW Indirect Canopy/Ceiling Washer bracket (dry/damp locations only) ⁵ Shipped separately AWS 3/8inch Architectural wall spacer PBBW Surface-mounted back box (top, left, right conduit entry)
	P2	30K 3000K	90CRI	VW Visual comfort wide		
		35K 3500K				
		40K 4000K				
		50K ¹ 5000K				

Options	Finish
E4WH ³ Emergency battery backup, Certified in CA Title 20 MAEDBS (4W, 0°C min)	DDBXD Dark bronze
PE ⁴ Photocell, Button Type	DBLXD Black
DS Dual switching (comes with 2 drivers and 2 light engines; see page 3 for details)	DNAXD Natural aluminum
DMG 0-10V dimming wires pulled outside fixture (for use with an external control, ordered separately)	DWHXD White
BCE Bottom conduit entry for back box (PBBW). Total of 4 entry points.	DSSXD Sandstone
	DDBTXD Textured dark bronze
	DBLTXD Textured black
	DNATXD Textured natural aluminum
	DWHGXD Textured white
	DSSTXD Textured sandstone

Accessories

Ordered and shipped separately.

WDGEAWS DDBXD U WEDGE 3/8inch Architectural Wall Spacer (specify finish)
 WDGE1PBBW DDBXD U WEDGE1 surface-mounted back box (specify finish)

NOTES

- 50K not available in 90CRI.
- 347V not available with E4WH, DS or PE.
- E4WH not available with PE or DS.
- PE not available with DS.
- Not qualified for DLC. Not available with E4WH.



COMMERCIAL OUTDOOR

One Lithonia Way • Conyers, Georgia 30012 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
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WEDGE1 LED
 Rev. 11/16/20

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Contact factory for performance data on any configurations not shown here.

Performance Package	System Watts	Dist. Type	27K (2700K, 80 CRI)					30K (3000K, 80 CRI)					35K (3500K, 80 CRI)					40K (4000K, 80 CRI)					50K (5000K, 80 CRI)				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
P1	10W	VF	1,120	112	0	0	0	1,161	116	0	0	0	1,194	119	0	0	0	1,227	123	0	0	0	1,235	123	0	0	0
		VW	1,122	112	0	0	0	1,163	116	0	0	0	1,196	120	0	0	0	1,229	123	0	0	0	1,237	124	0	0	0
P2	15W	VF	1,806	120	1	0	0	1,872	125	1	0	0	1,925	128	1	0	0	1,978	132	1	0	0	1,992	133	1	0	0
		VW	1,809	120	1	0	0	1,876	125	1	0	0	1,929	128	1	0	0	1,982	132	1	0	0	1,996	133	1	0	0

Electrical Load

Performance Package	System Watts	Current (A)				
		120V	208V	240V	277V	347V
P1	10W	0.082	0.049	0.043	0.038	--
	13W	--	--	--	--	0.046
P2	15W	0.132	0.081	0.072	0.064	--
	18W	--	--	--	--	0.056

Lumen Multiplier for 90CRI

CCT	Multiplier
27K	0.845
30K	0.867
35K	0.845
40K	0.885
50K	0.898

Lumen Output in Emergency Mode (4000K, 80 CRI)

Option	Dist. Type	Lumens
E4WH	VF	646
	VW	647

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.03
10°C	50°F	1.02
20°C	68°F	1.01
25°C	77°F	1.00
30°C	86°F	0.99
40°C	104°F	0.98

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a 25°C ambient, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

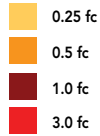
Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	1.0	>0.96	>0.95	>0.91



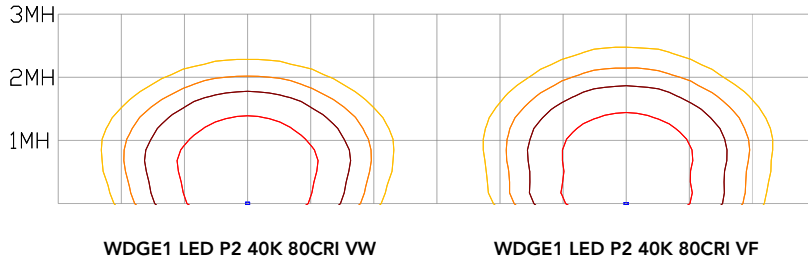
Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit the Lithonia Lighting WDGE LED homepage.
Tested in accordance with IESNA LM-79 and LM-80 standards.

LEGEND



MH = 8ft
Grid = 8ft x 8ft



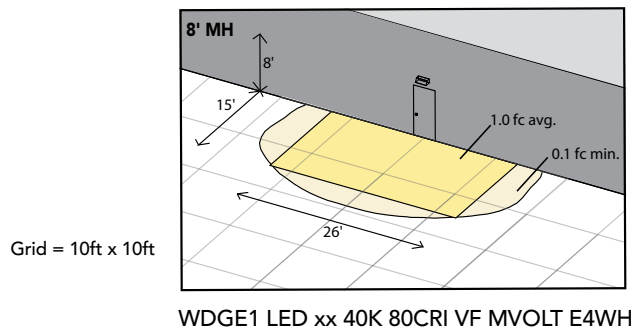
Emergency Egress Options

Emergency Battery Backup

The emergency battery backup is integral to the luminaire — no external housing required! This design provides reliable emergency operation while maintaining the aesthetics of the product. All emergency battery backup configurations include an independent secondary driver with an integral relay to immediately detect loss of normal power and automatically energize the luminaire. The emergency battery will power the luminaire for a minimum duration of 90 minutes (maximum duration of three hours) from the time normal power is lost and maintain a minimum of 60% of the light output at the end of 90 minutes.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9

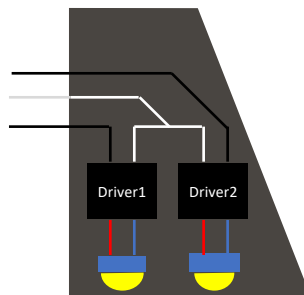
The example below shows illuminance of 1 fc average and 0.1 fc minimum in emergency mode with E4WH and VF distribution.



Dual Switching (DS) Option

The dual switching option offers operational redundancy that certain codes require. With this option the luminaire comes integrated with two drivers and two light engines. These work completely independent to each other so that a failure of any individual component does not cause the whole luminaire to go dark. This option is typically used with a back generator or inverter providing emergency power.

Applicable codes: NFPA 70/NEC – section 700.16, NFPA 101 Life Safety Code Section 7.9





E4WH – 4W Emergency Battery Backup

D = 5.5"

H = 8"

W = 9"



PBBW – Surface-Mounted Back Box

D = 1.75"

H = 8"

W = 9"



AWS – 3/8inch Architectural Wall Spacer

D = 0.38"

H = 4.4"

W = 7.5"

FEATURES & SPECIFICATIONS

INTENDED USE

Common architectural look, with clean rectilinear shape, of the WDGE LED was designed to blend with any type of construction, whether it be tilt-up, frame or brick. Applications include commercial offices, warehouses, hospitals, schools, malls, restaurants, and other commercial buildings.

CONSTRUCTION

The single-piece die-cast aluminum housing integrates secondary heat sinks to optimize thermal transfer from the internal light engine heat sinks and promote long life. The driver is mounted in direct contact with the casting for a low operating temperature and long life. The die-cast door frame is fully gasketed with a one-piece solid silicone gasket to keep out moisture and dust, providing an IP66 rating for the luminaire.

FINISH

Exterior painted parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Standard Super Durable colors include dark bronze, black, natural aluminum, sandstone and white. Available in textured and non-textured finishes.

OPTICS

Well crafted reflector optics allow the light engine to be recessed within the luminaire, providing visual comfort, superior distribution, uniformity, and spacing in wall-mount applications. The WDGE LED has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine consists of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L91/100,000 hours at 25°C). The electronic driver has a power factor of >90%, THD <20%. Luminaire comes with built in 6kV surge protection, which meets a minimum Category C low exposure (per ANSI/IEEE C62.41.2).

INSTALLATION

A universal mounting plate with integral mounting support arms allows the fixture to hinge down for easy access while making wiring connections. The 3/8" Architectural Wall Spacer (AWS) can be used to create a floating appearance or to accommodate small imperfections in the wall surface. The ICW option can be used to mount the luminaire inverted for indirect lighting in dry and damp locations. Design can withstand up to a 1.5 G vibration load rating per ANSI C136.31.

LISTINGS

CSA certified to U.S. and Canadian standards. Luminaire is IP66 rated. PIR options are rated for wet location. Rated for -40°C minimum ambient. DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified. International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 2700K and 3000K color temperature only and SRM mounting only.

WARRANTY

5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

TRAFFIC IMPACT AND ACCESS STUDY

PROPOSED APARTMENT COMPLEX- RILEY AT OVERBROOK GREENVILLE, SOUTH CAROLINA

Prepared for:

**Thomas & Hutton
Columbia, SC**

**Submitted
December 2021**

Prepared by:



EPC, LLC
1144 Woodtrail Drive
Gaston, SC 29053



EPC, LLC
1144 Woodtrail Drive
Gaston, SC 29053

December 8, 2021

Mr. Mark DeSouza
Thomas & Hutton
1501 Main St, Suite 760
Columbia, SC 29201

Email: desouza.m@tandh.com
Cell: 678 863 0549

**RE: Traffic Impact and Access Study
Riley at Overbrook- Lowndes Hill Road
Greenville, SC**

Dear Mr. DeSouza:

As requested, Encroachment Permit Clearinghouse (EPC) has completed an assessment of the traffic impacts associated with the development of a new residential apartment complex to be located on the south side of Lowndes Hill Road in Greenville, SC. The following provides a summary of this study's findings.

PROJECT DESCRIPTION

The project site is generally located between I 385 and Lowndes Hill Road in Greenville, SC. The site is comprised of a single parcel (TMS #195-1-2.1) and totals 5.9-acres, and is sporadically wooded. As planned, 88 multi-family apartment units are proposed which will be provided a single access to/from Lowndes Hill Road. The access as proposed is provided via the existing right-of-way of the prior Woodlark Street (now closed) which allows this parcel to access Lowndes Hill Road.

As scheduled, this development is planned to be constructed and occupied by 2024. **Figure 1** depicts the site location in relation to the regional roadway system. **Figure 2** depicts the proposed development plan.

EXISTING CONDITIONS

A comprehensive field inventory of the project study area was conducted in early December 2021 while schools were in session. The field inventory included a collection of geometric data, traffic volumes and traffic control within the study area. The following sections detail the current traffic conditions and include a description of roadways/intersections serving the site and traffic flow in close proximity to the project.

Study Area Intersection

As identified by City of Greenville staff, the intersection of Lowndes Hill Road at Arbutus Trail has been required to be analyzed in order to determine project impact on the surrounding roadway network as well as review the possible need for turning lanes as the future access.

Figure 3 illustrates the existing geometrics and traffic control for the study area intersections and surrounding roadways.

Traffic Volumes

In order to determine the existing traffic volume flow patterns within the study area, manual turning movement counts were performed. Weekday morning (7:00-9:00 AM) and evening (4:00-6:00 PM) peak period turning movement specific counts were conducted for the above referenced intersection.

Summarized count sheets for the study area intersection are included in the Appendix of this report. **Figure 4** graphically depicts the respective 2021 Existing AM and PM peak-hour traffic volumes at the study area intersections to be used for analytical purposes.

FUTURE CONDITIONS

Traffic analyses for future conditions have been conducted for two separate scenarios: first, 2024 No-Build conditions, which include an annual normal growth in traffic, all pertinent background development traffic, and any pertinent planned roadway/intersection improvements; and secondly, 2024 Build conditions, which account for all No-Build conditions PLUS traffic generated by the proposed development.

Future No-Build Traffic Conditions

Background Development/Planned Roadway Improvements

Based on discussions with City staff, there are no planned background developments planned within the immediate area of the site nor are there any scheduled roadway improvements in the study area prior to the development year of this project.

Annual Growth Rate

Based on SCDOT permanent count station data, one count station exists directly at the site access at the old intersection of Woodlark Street, #23-0326. Reviewing this data reflects an actual decrease in daily traffic volumes between the three-year period of 2018 and 2020. Based on this and to maintain a conservative analyses framework, a 2-percent annual growth has been assumed and used for purposes of this report.

The anticipated 2024 No-Build AM and PM peak-hour traffic volumes, which reflect the annual 2-percent annual growth rate are shown in **Figure 5**.

Site-Generated Traffic

Traffic volumes expected to be generated by the proposed project were forecasted using the Tenth Edition of the ITE *Trip Generation* manual, as published by the Institute of Transportation Engineers. As planned, 88 apartment/multi-family units are being planned. **Table 1** depicts the anticipated site-generated traffic.

Table 1
TRIP GENERATION SUMMARY¹
Riley at Overbrook Apartments

Time Period	88 Multi-Family Units
Weekday Daily	644
AM Peak-Hour	
Enter	9
<u>Exit</u>	<u>33</u>
Total	42
PM Peak-Hour	
Enter	33
<u>Exit</u>	<u>20</u>
Total	53

1. ITE *TRIP GENERATION* 10th Ed. LUC 220.

As shown, the proposed development can be expected to generate 644 two-way daily trips of which a total of 42 trips (9 entering and 33 exiting) are expected during the AM peak-hour. During the PM peak-hour, a total of 53 trips (33 entering, 20 exiting) are expected.

Distribution Pattern

The directional distribution of site-generated traffic on the study area roadways has been based on an evaluation of existing travel patterns in the study area. As expected, a majority of the site-generated traffic can be expected to orient towards I 385 which can be accessed via adjacent interchanges to both the east and west. Also considered as part of the attractions are the schools directly to the north of the project site along Lowndes Avenue which can be accessed via Arbutus Trail. The anticipated pattern is shown in **Table 2**. This distribution pattern has been applied to the site-generated traffic volumes from Table 1 to develop the site-generated specific volumes for the study area intersections illustrated in **Figure 6**.

Table 2
TRIP DISTRIBUTION PATTERN
Riley at Overbrook Apartments

Roadways	Direction To/From	Percent of Trips Enter/Exit
Lowndes Hill Road	East	50
	West	40
Arbutus Trail	North	10
	Total	100

Note: Based on the existing traffic patterns during both peak hours

Future Build Traffic Conditions

The site-generated traffic, as depicted in Figure 6 has been added to the respective 2024 No-Build traffic volumes shown in Figure 5. This results in the peak-hour 2024 Build traffic volumes, which are graphically depicted in **Figure 7**. These volumes were used as the basis to determine potential improvement measures necessary to mitigate traffic impacts caused by the project.

TRAFFIC OPERATIONS

Analysis Methodology

A primary result of capacity analysis is the assignment of Level-of-Service (LOS) to traffic facilities under various traffic flow conditions. The concept of Level-of-Service is defined as a qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers. A Level-of-Service designation provides an index to the quality of traffic flow in terms of such factors as speed, travel time, freedom to maneuver, traffic interruptions, comfort, convenience, and safety.

Six Levels-of-Service are defined for each type of facility (signalized and unsignalized intersections). They are given letter designations from A to F, with LOS A representing the best operating conditions and LOS F the worst.

Since the Level-of-Service of a traffic facility is a function of the traffic flows placed upon it, such a facility may operate at a wide range of Levels-of-Service depending on the time of day, day of week, or period of a year.

Analysis Results

As part of this TIAS, capacity analyses have been performed at the study area intersections under both Existing and Future (No-Build & Build) conditions. The results of these analyses are summarized in **Table 3**.

Table 3
LEVEL-OF-SERVICE SUMMARY¹
Riley at Overbrook Apartments

<u>Unsignalized Intersections</u>	<u>Time</u>	<u>2021 EXISTING</u>		<u>2024 NO-BUILD</u>		<u>2024 BUILD</u>	
	<u>Period</u>	<u>Delay²</u>	<u>LOS³</u>	<u>Delay</u>	<u>LOS</u>	<u>Delay</u>	<u>LOS</u>
Lowndes Hill Road at	AM	10.4	B	10.5	B	10.7	B
Arbutus Trail	PM	10.3	B	10.5	B	10.6	B
Woodlark St Alignment/Site	AM	To be Constructed by Development				9.7	A
Access	PM					9.8	A

1. Calculations completed using the HCM 6th Ed methodology.

2. Delay in seconds-per-vehicle.

3. LOS = Level-of-Service.

GENERAL NOTES:

1. For unsignalized intersections, delay is representative of the worst approach.

As shown in Table 3, under Existing, future 2024 No-Build and future 2024 Build conditions, the unsignalized study area intersection of Lowndes Hill Road at Arbutus Trail operates at LOS B during both peak hours.

Operations for the Woodlark Street/site access indicate a LOS A during both the AM and PM peak-hours assuming the geometry and traffic control presented in the following section.

MITIGATION

The final phase of the analysis process is to identify mitigating measures which may either minimize the impact of the project on the transportation system or tend to alleviate poor service levels not caused by the project. The following describes measures necessary to mitigate the project's impact.

Woodlark Street Access

The Woodlark Street right-of-way (approx. location of existing graveled access) is located approximately 55-feet west of Arbutus Trail. The following geometrics are recommended for this approach:

- ***Northbound (Woodlark Street/Access) Approach:*** Construct site access to provide a two-lane approach with one lane entering and one lane exiting designated as a shared left/right-turn lane;
- ***Eastbound (Lowndes Hill Road) Approach*** Based on projected peak-hour volumes, a right-turn lane entering is not required at this location based on *Fig. 9.5-A of the SCDOT Design Manual*;
- ***Westbound (Lowndes Hill Road) Approach:*** Based on projected peak-hour volumes, a left-turn lane is not required at this location based on *Fig. 9.5-G of the SCDOT Design Manual*;
- ***Throat Length:*** The recommended throat length between Lowndes Hill Road and the first internal intersection is suggested at a minimum of 100-feet based on the projected turning volumes during the AM peak-hour; and
- ***Traffic Control:*** Place intersection under STOP sign control where traffic approaching Lowndes Hill Road must stop prior to entering the intersection.

Note: The separation of 55-feet between Woodlark Street and Arbutus Trail does not meet the SCDOT standard of separation as indicated by *Figure 3-7 of the ARMs Manual* (recommends 160-ft for a 30-mph roadway).

Sight Distance Considerations

The access drive intersection should be designed/constructed to meet current applicable SCDOT standards and/or guidelines in terms of sight distance. It is assumed that this will be the responsibility of the project's civil engineer and will be depicted by the site plan/submittal information. As recommended by *Table 7-12 of the SCDOT ARMs*, at 30 mph a sight distance of 335-feet is recommended.

Off-Site Study Area Intersection

As shown in Table 3, the unsignalized off-site study area intersection of Lowndes Hill Road at Arbutus Trail operates at a LOS B for all conditions during both peak hours. Based on this, no improvements are suggested for this intersection at this time.

SUMMARY

EPC has completed a Traffic Impact and Access Study relative to the Riley at Overbrook apartment project which is located on the south side of Lowndes Hill in Greenville, SC. This property is planned to be developed/occupied by 2024 as an 88-unit complex with access to/from Woodlark Street which in turn provides access to Lowndes Hill Road.

Detailed analyses have been conducted for the adjacent off-site intersection of Lowndes Hill Road at Arbutus Trail as well as the site access drive to Lowndes Hill Road. These analyses indicated that each of these intersections will operate at good service levels during both peak hours under the future Build condition.

Recommendations have been made for the proposed approach of Woodlark Street/site access to Lowndes Hill Road including roadway cross-section of the new approach and sight distance recommendations.

If you have any questions, please contact me at 803 361 3265.



Todd E. Salvagin
EPC, LLC



Attachments

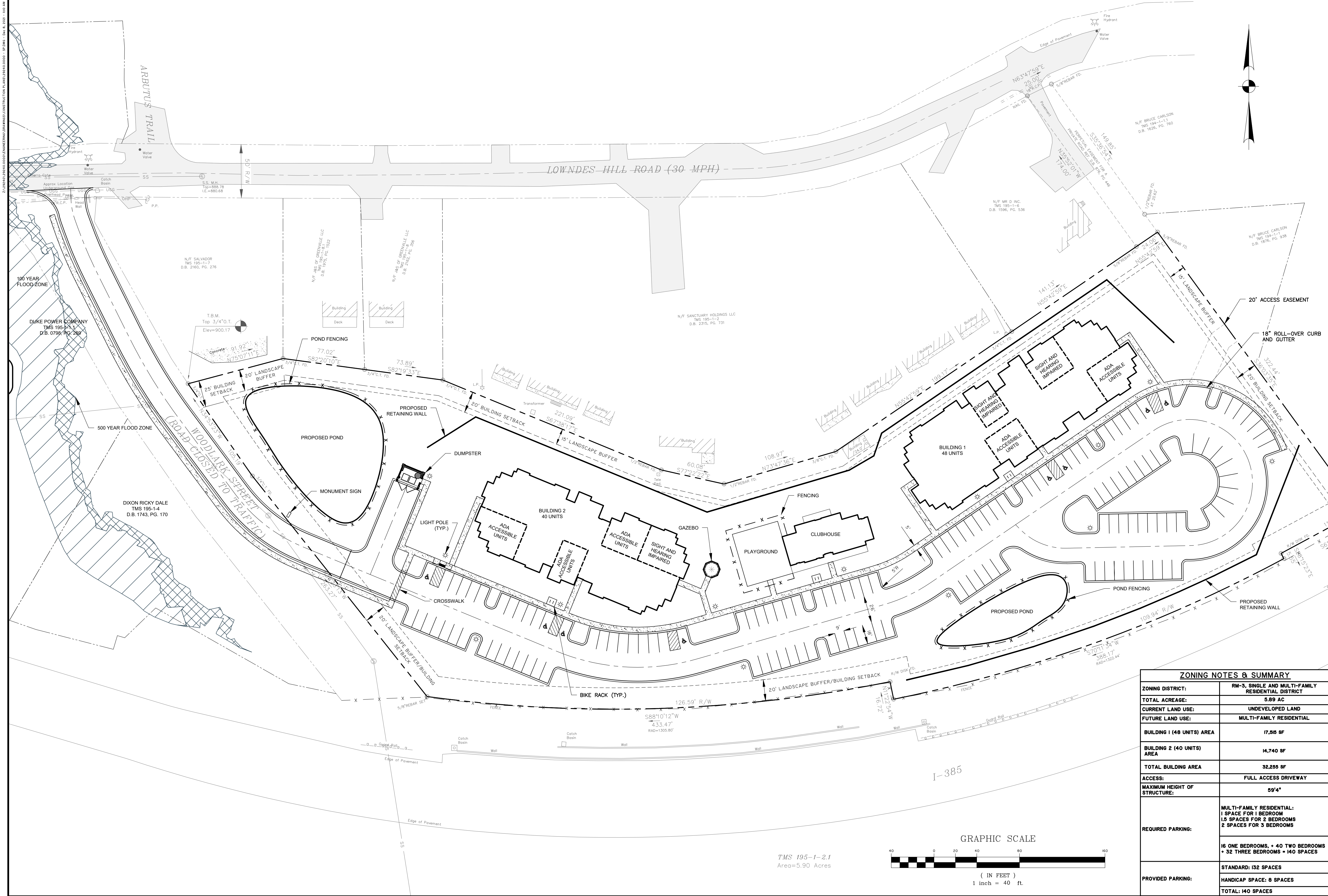


NOT TO SCALE

Figure 1
SITE LOCATION MAP
Riley at Overbrook Apartments
City of Greenville, SC



EPC, LLC



ZONING NOTES & SUMMARY	
ZONING DISTRICT:	RM-3, SINGLE AND MULTI-FAMILY RESIDENTIAL DISTRICT
TOTAL ACREAGE:	5.89 AC
CURRENT LAND USE:	UNDEVELOPED LAND
FUTURE LAND USE:	MULTI-FAMILY RESIDENTIAL
BUILDING 1 (48 UNITS) AREA	17,815 SF
BUILDING 2 (40 UNITS) AREA	14,740 SF
TOTAL BUILDING AREA	32,255 SF
ACCESS:	FULL ACCESS DRIVEWAY
MAXIMUM HEIGHT OF STRUCTURE:	59'4"
REQUIRED PARKING:	MULTI-FAMILY RESIDENTIAL: 1 SPACE FOR 1 BEDROOM 1.5 SPACES FOR 2 BEDROOMS 2 SPACES FOR 3 BEDROOMS 16 ONE BEDROOMS, + 40 TWO BEDROOMS + 32 THREE BEDROOMS = 140 SPACES
PROVIDED PARKING:	STANDARD: 132 SPACES HANDICAP SPACE: 8 SPACES TOTAL: 140 SPACES

NOT FOR CONSTRUCTION

NO.	REVISIONS	BY	DATE

SCHAUMBER DEVELOPMENT, LLC
CITY OF GREENVILLE, SC

RILEY AT OVERBROOK

SITE PLAN

JOB NO: J-29240.0000
DATE: 12/06/2021
DRAWN: BMC
DESIGNED: CGW
REVIEWED: MGD
APPROVED: MGD
SCALE: 1" = 40'

C1.1

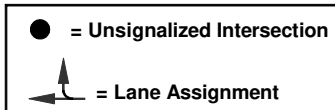
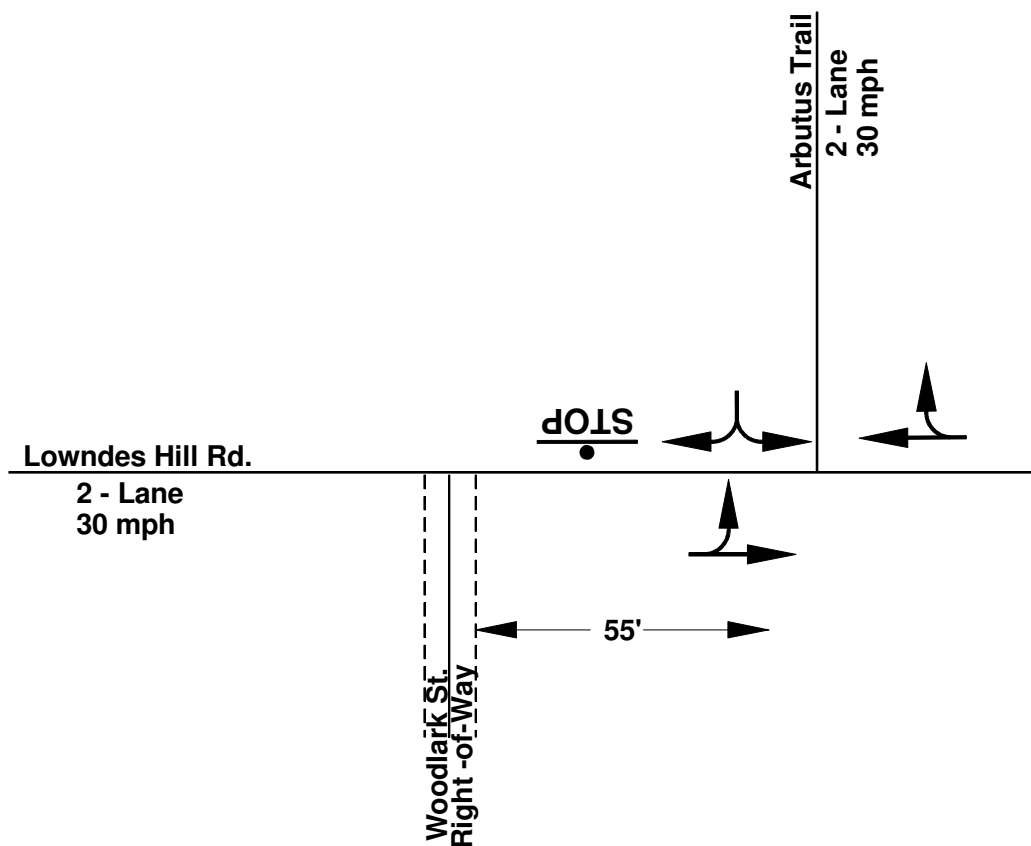
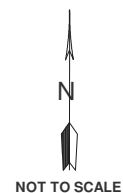


Figure 3
EXISTING GEOMETRICS & TRAFFIC CONTROL
Riley at Overbrook Apartments
Greenville, S.C.

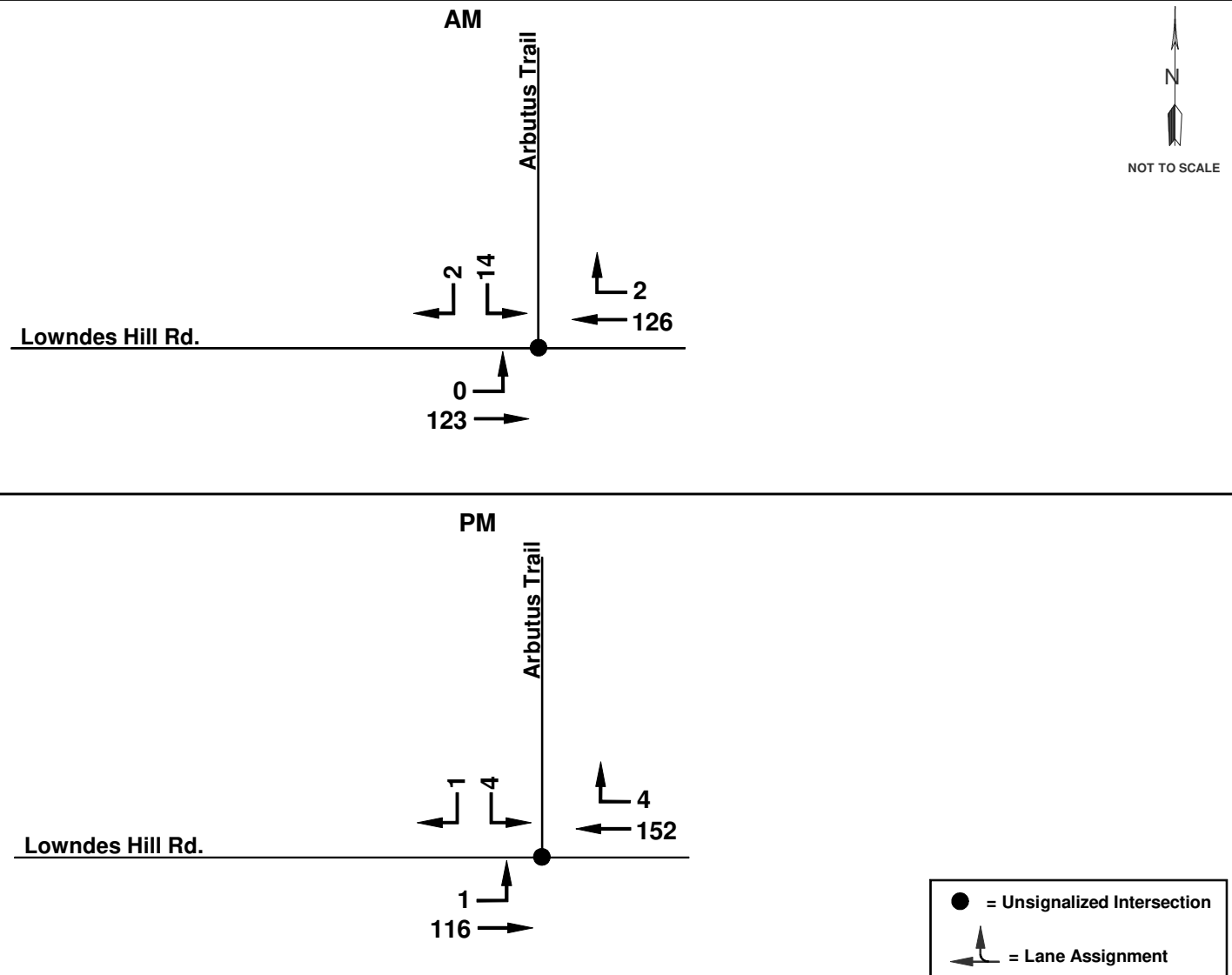


Figure 4
2021 EXISTING TRAFFIC VOLUMES
AM & PM PEAK HOURS
Riley at Overbrook Apartments
Greenville, S.C.

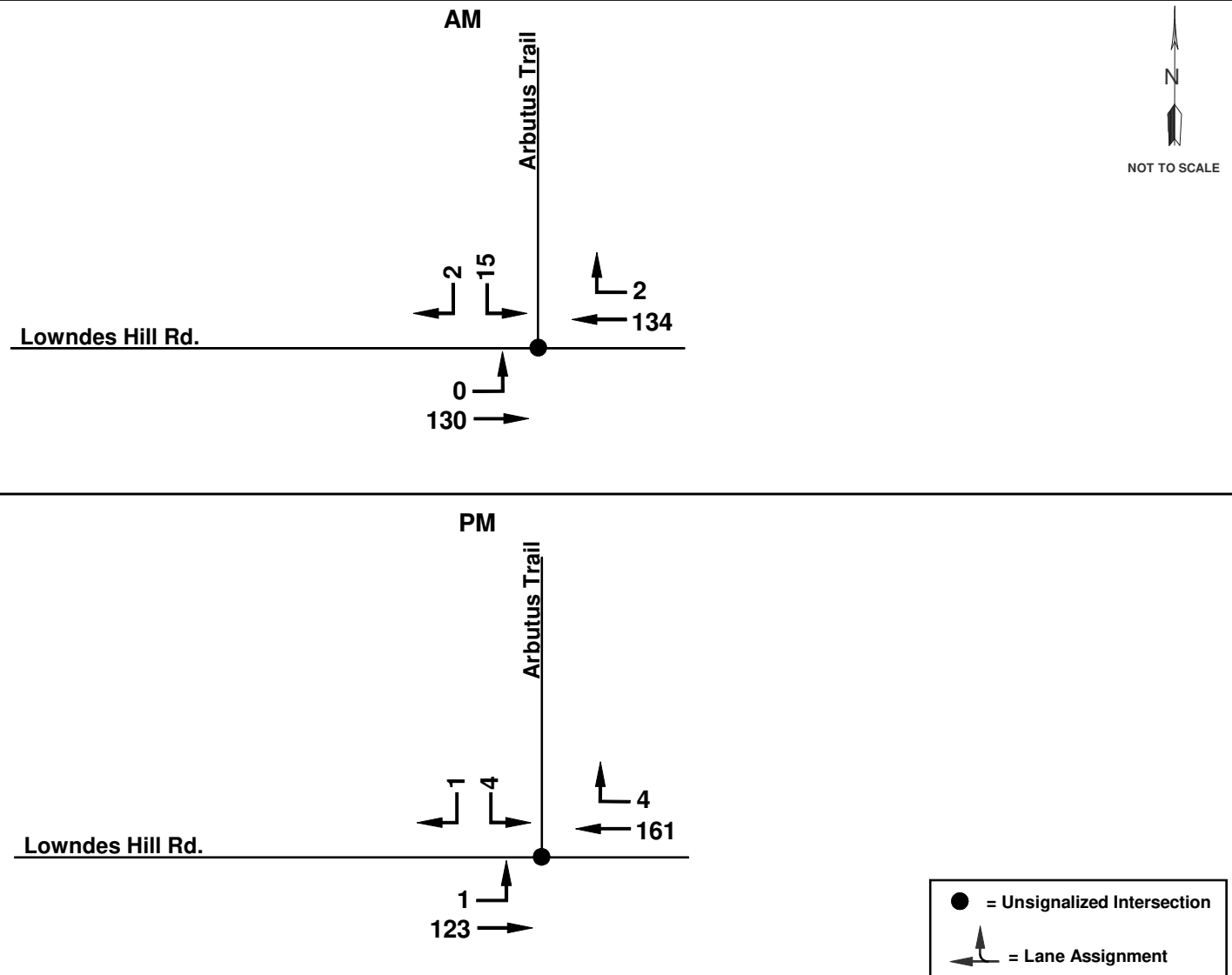


Figure 5
2024 NO-BUILD TRAFFIC VOLUMES
AM & PM PEAK HOURS
Riley at Overbrook Apartments
Greenville, S.C.

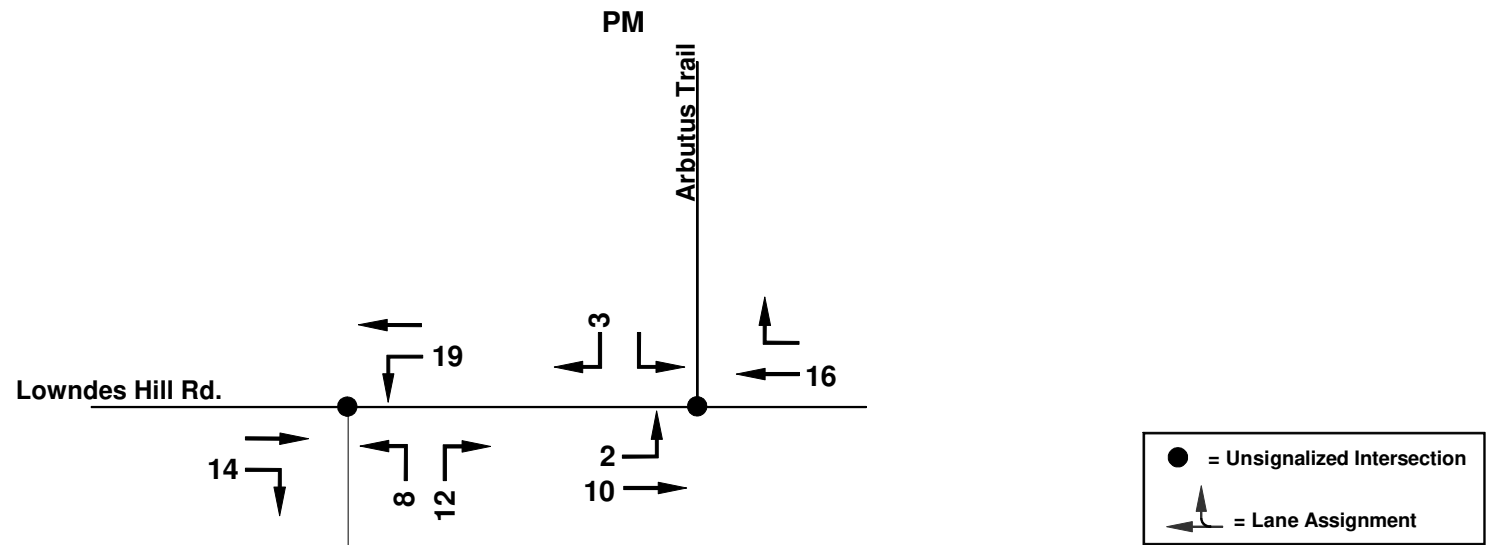
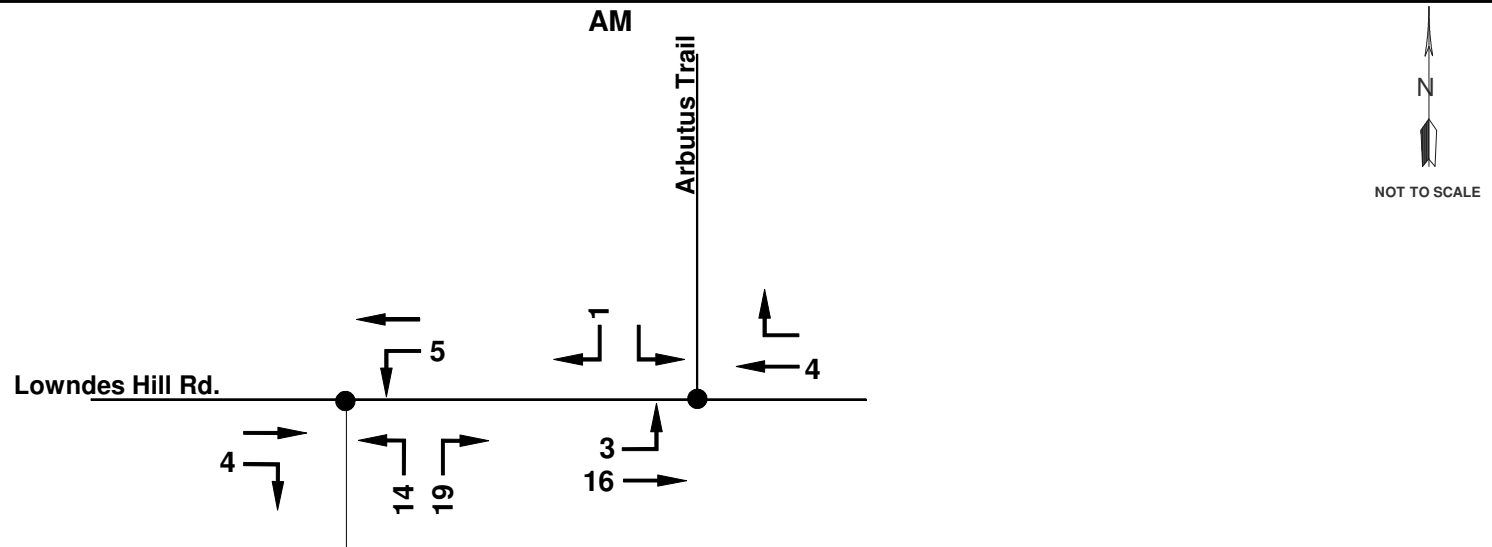


Figure 6
2024 SITE-GENERATED TRAFFIC VOLUMES
AM & PM PEAK HOURS
 Riley at Overbrook Apartments
 Greenville, S.C.

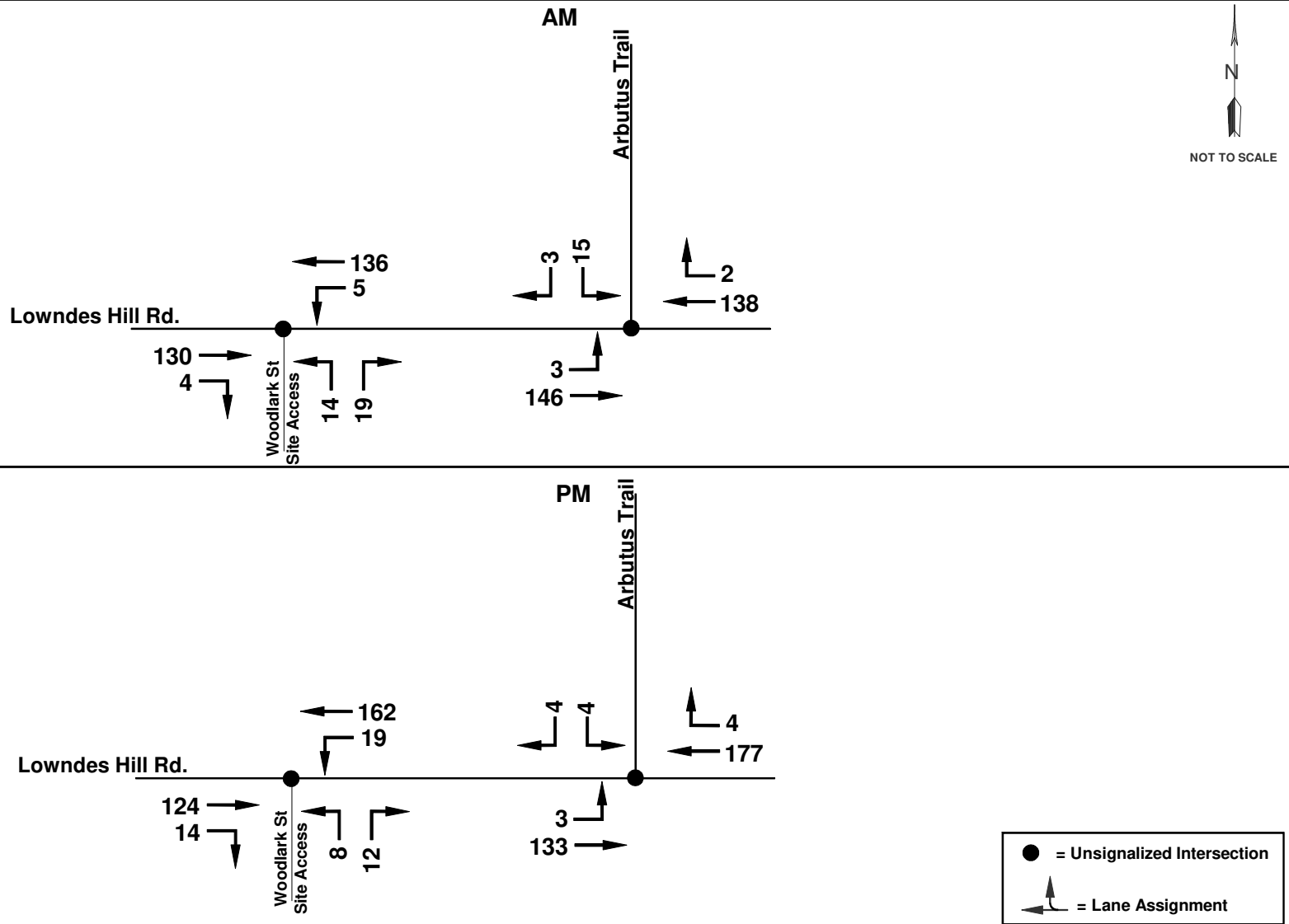


Figure 7

2024 BUILD TRAFFIC VOLUMES

AM & PM PEAK HOURS

Riley at Overbrook Apartments
Greenville, S.C.

COUNT DATA

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary	Count Name	Notes	<p>U = U Turn L = Left Turn T = Thru R = Right Turn P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2 Veh = Total Vehicles for Approach</p>	Peak Hour Volume	
	Lowndes Hill Rd at Arbutus Trl AM Peak			267	
	Location			% Bank 1	% Bank 2
	Greenville , Not Available			96.3%	3.7%
	Performed By			% Bank 3	% Bank 4
	Nathan			0.0%	0.0%
	Date			Pedestrians Volume	
	Wednesday, December 1, 2021			0	

Peak Hour Data

Time Period	EB Lowndes Hill Rd							WB Lowndes Hill Rd							SB Arbutus Trail							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
7:30 AM	0	0	38	0	0	0	38	0	0	35	1	0	0	36	0	0	0	0	0	0	4	78	0
7:45 AM	0	0	32	0	0	0	32	0	0	29	1	0	0	30	0	0	0	0	0	0	3	65	0
8:00 AM	0	0	25	0	0	0	25	0	0	26	0	0	0	26	0	0	0	0	0	0	4	55	0
8:15 AM	0	0	28	0	0	0	28	0	0	36	0	0	0	36	0	0	0	0	0	0	5	69	0

Vehicle Movement Summary

Movement / Details	EB Lowndes Hill Rd							WB Lowndes Hill Rd							SB Arbutus Trail							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	0	123	0	0	0	123	0	0	126	2	0	0	128	0	0	0	0	0	0	16	267	0
PHF	-	-	0.81	-	-	-	0.81	-	-	0.88	0.50	-	-	0.89	-	-	-	-	-	-	0.80	0.86	-
% Bank 1	0.0%	0.0%	97.6%	0.0%				0.0%	0.0%	96.8%	100.0%				0.0%	0.0%	0.0%	0.0%				<p>Need a custom report?</p> <p>Contact: support@portablestudies.com</p>	
% Bank 2	0.0%	0.0%	2.4%	0.0%				0.0%	0.0%	3.2%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 3	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					

Turning Movement Count Report

Report Generated Using Turning Movement Count for Android by PortableStudies.com

Study Information

Study Summary	Count Name	Notes	<p>U = U Turn L = Left Turn T = Thru R = Right Turn P1 = Pedestrian Direction 1 P2 = Pedestrian Direction 2 Veh = Total Vehicles for Approach</p>	Peak Hour Volume	
	Lowndes Hill Rd at Arbutus Trl PM Peak			278	
	Location			% Bank 1	% Bank 2
	Greenville , Not Available			97.5%	2.5%
	Performed By			% Bank 3	% Bank 4
	Nathan			0.0%	0.0%
	Date			Pedestrians Volume	
	Wednesday, December 1, 2021			0	

Peak Hour Data




Time Period	EB Lowndes Hill Rd							WB Lowndes Hill Rd							SB Arbutus Trail							Total Vehicles	Total Pedestrians
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh		
4:55 PM	0	1	18	0	0	0	19	0	0	32	0	0	0	32	0	0	0	0	0	0	0	51	0
5:10 PM	0	0	25	0	0	0	25	0	0	49	0	0	0	49	0	0	0	0	0	0	1	75	0
5:25 PM	0	0	40	0	0	0	40	0	0	46	0	0	0	46	0	0	0	0	0	0	2	88	0
5:40 PM	0	0	33	0	0	0	33	0	0	25	4	0	0	29	0	0	0	0	0	0	2	64	0




Vehicle Movement Summary




Movement / Details	EB Lowndes Hill Rd							WB Lowndes Hill Rd							SB Arbutus Trail							Entire Intersection	
	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	U	L	T	R	P1	P2	Veh	Vehicles	Pedestrians
Movement Volume	0	1	116	0	0	0	117	0	0	152	4	0	0	156	0	0	0	0	0	0	0	278	0
PHF	-	0.25	0.73	-	-	-	0.73	-	-	0.78	0.25	-	-	0.80	-	-	-	-	-	-	0.63	0.79	-
% Bank 1	0.0%	0.0%	97.4%	0.0%				0.0%	0.0%	98.0%	100.0%				0.0%	0.0%	0.0%	0.0%				<p>Need a custom report?</p> <p>Contact: support@portablestudies.com</p>	
% Bank 2	0.0%	100.0%	2.6%	0.0%				0.0%	0.0%	2.0%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 3	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					
% Bank 4	0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%				0.0%	0.0%	0.0%	0.0%					




CAPACITY ANALYSIS




- **2021 Existing**
- **2024 No-Build**
- **2024 Build**




Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	123	126	2	14	2
Future Vol, veh/h	0	123	126	2	14	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	3	3	2	21	2
Mvmt Flow	0	143	147	2	16	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	149	0	-	0	291	148
Stage 1	-	-	-	-	148	-
Stage 2	-	-	-	-	143	-
Critical Hdwy	4.12	-	-	-	6.61	6.22
Critical Hdwy Stg 1	-	-	-	-	5.61	-
Critical Hdwy Stg 2	-	-	-	-	5.61	-
Follow-up Hdwy	2.218	-	-	-	3.689	3.318
Pot Cap-1 Maneuver	1432	-	-	-	661	899
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	840	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1432	-	-	-	661	899
Mov Cap-2 Maneuver	-	-	-	-	661	-
Stage 1	-	-	-	-	835	-
Stage 2	-	-	-	-	840	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.4		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1432	-	-	-	684	
HCM Lane V/C Ratio	-	-	-	-	0.027	
HCM Control Delay (s)	0	-	-	-	10.4	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	




Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	116	152	4	4	1
Future Vol, veh/h	1	116	152	4	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	1	147	192	5	5	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	197	0	-	0	344	195
Stage 1	-	-	-	-	195	-
Stage 2	-	-	-	-	149	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1376	-	-	-	652	846
Stage 1	-	-	-	-	838	-
Stage 2	-	-	-	-	879	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1376	-	-	-	651	846
Mov Cap-2 Maneuver	-	-	-	-	651	-
Stage 1	-	-	-	-	837	-
Stage 2	-	-	-	-	879	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		10.3		
HCM LOS	B					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1376	-	-	-	682	
HCM Lane V/C Ratio	0.001	-	-	-	0.009	
HCM Control Delay (s)	7.6	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0	




Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	123	126	2	14	2
Future Vol, veh/h	0	123	126	2	14	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	3	3	2	21	2
Mvmt Flow	0	152	155	2	17	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	157	0	-	0	308	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	152	-
Critical Hdwy	4.12	-	-	-	6.61	6.22
Critical Hdwy Stg 1	-	-	-	-	5.61	-
Critical Hdwy Stg 2	-	-	-	-	5.61	-
Follow-up Hdwy	2.218	-	-	-	3.689	3.318
Pot Cap-1 Maneuver	1423	-	-	-	646	890
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	832	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1423	-	-	-	646	890
Mov Cap-2 Maneuver	-	-	-	-	646	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	832	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1423	-	-	-	669	
HCM Lane V/C Ratio	-	-	-	-	0.029	
HCM Control Delay (s)	0	-	-	-	10.5	
HCM Lane LOS	A	-	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	116	152	4	4	1
Future Vol, veh/h	1	116	152	4	4	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	1	156	204	5	5	1
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	209	0	-	0	365	207
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	158	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1362	-	-	-	635	833
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1362	-	-	-	634	833
Mov Cap-2 Maneuver	-	-	-	-	634	-
Stage 1	-	-	-	-	827	-
Stage 2	-	-	-	-	871	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		10.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1362	-	-	-	-	666
HCM Lane V/C Ratio	0.001	-	-	-	-	0.01
HCM Control Delay (s)	7.6	0	-	-	-	10.5
HCM Lane LOS	A	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	-	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	146	138	2	15	3
Future Vol, veh/h	3	146	138	2	15	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	3	3	2	21	2
Mvmt Flow	3	170	160	2	17	3
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	162	0	-	0	337	161
Stage 1	-	-	-	-	161	-
Stage 2	-	-	-	-	176	-
Critical Hdwy	4.12	-	-	-	6.61	6.22
Critical Hdwy Stg 1	-	-	-	-	5.61	-
Critical Hdwy Stg 2	-	-	-	-	5.61	-
Follow-up Hdwy	2.218	-	-	-	3.689	3.318
Pot Cap-1 Maneuver	1417	-	-	-	622	884
Stage 1	-	-	-	-	824	-
Stage 2	-	-	-	-	811	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1417	-	-	-	621	884
Mov Cap-2 Maneuver	-	-	-	-	621	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	811	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		10.7		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1417	-	-	-	653	
HCM Lane V/C Ratio	0.002	-	-	-	0.032	
HCM Control Delay (s)	7.5	0	-	-	10.7	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

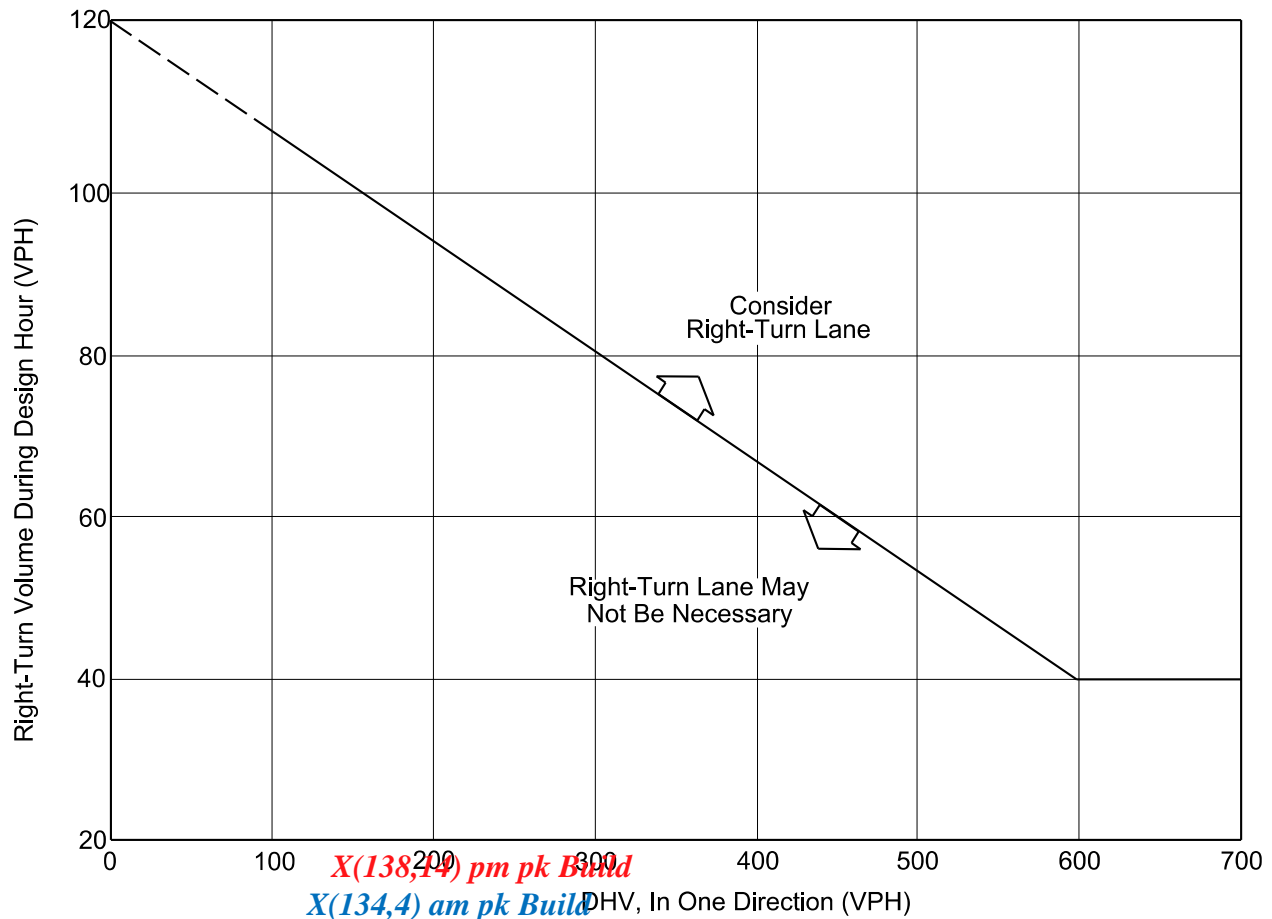
Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	133	177	4	4	4
Future Vol, veh/h	3	133	177	4	4	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	72	70	70	72	70	70
Heavy Vehicles, %	2	3	2	2	2	2
Mvmt Flow	4	190	253	6	6	6
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	259	0	-	0	454	256
Stage 1	-	-	-	-	256	-
Stage 2	-	-	-	-	198	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1306	-	-	-	564	783
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1306	-	-	-	562	783
Mov Cap-2 Maneuver	-	-	-	-	562	-
Stage 1	-	-	-	-	785	-
Stage 2	-	-	-	-	835	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		10.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1306	-	-	-	654	
HCM Lane V/C Ratio	0.003	-	-	-	0.017	
HCM Control Delay (s)	7.8	0	-	-	10.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	130	4	5	136	14	19
Future Vol, veh/h	130	4	5	136	14	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	141	4	5	148	15	21
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	145	0	301	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	158	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1437	-	691	905
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1437	-	688	905
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	868	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		9.7	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	798	-	-	1437	-	
HCM Lane V/C Ratio	0.045	-	-	0.004	-	
HCM Control Delay (s)	9.7	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	124	14	19	162	8	12
Future Vol, veh/h	124	14	19	162	8	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	135	15	21	176	9	13
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	150	0	361	143
Stage 1	-	-	-	-	143	-
Stage 2	-	-	-	-	218	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1431	-	638	905
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	818	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1431	-	628	905
Mov Cap-2 Maneuver	-	-	-	-	628	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	805	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.8		9.8	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	769	-	-	1431	-	
HCM Lane V/C Ratio	0.028	-	-	0.014	-	
HCM Control Delay (s)	9.8	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

TURNING LANE WARRANT

Lowndes Hill Rd @ Woodlark St



Note: For highways with a design speed below 50 miles per hour with a DHV < 300 and where right turns > 40, an adjustment should be used. To read the vertical axis of the chart, subtract 20 from the actual number of right turns.

Example

Given:

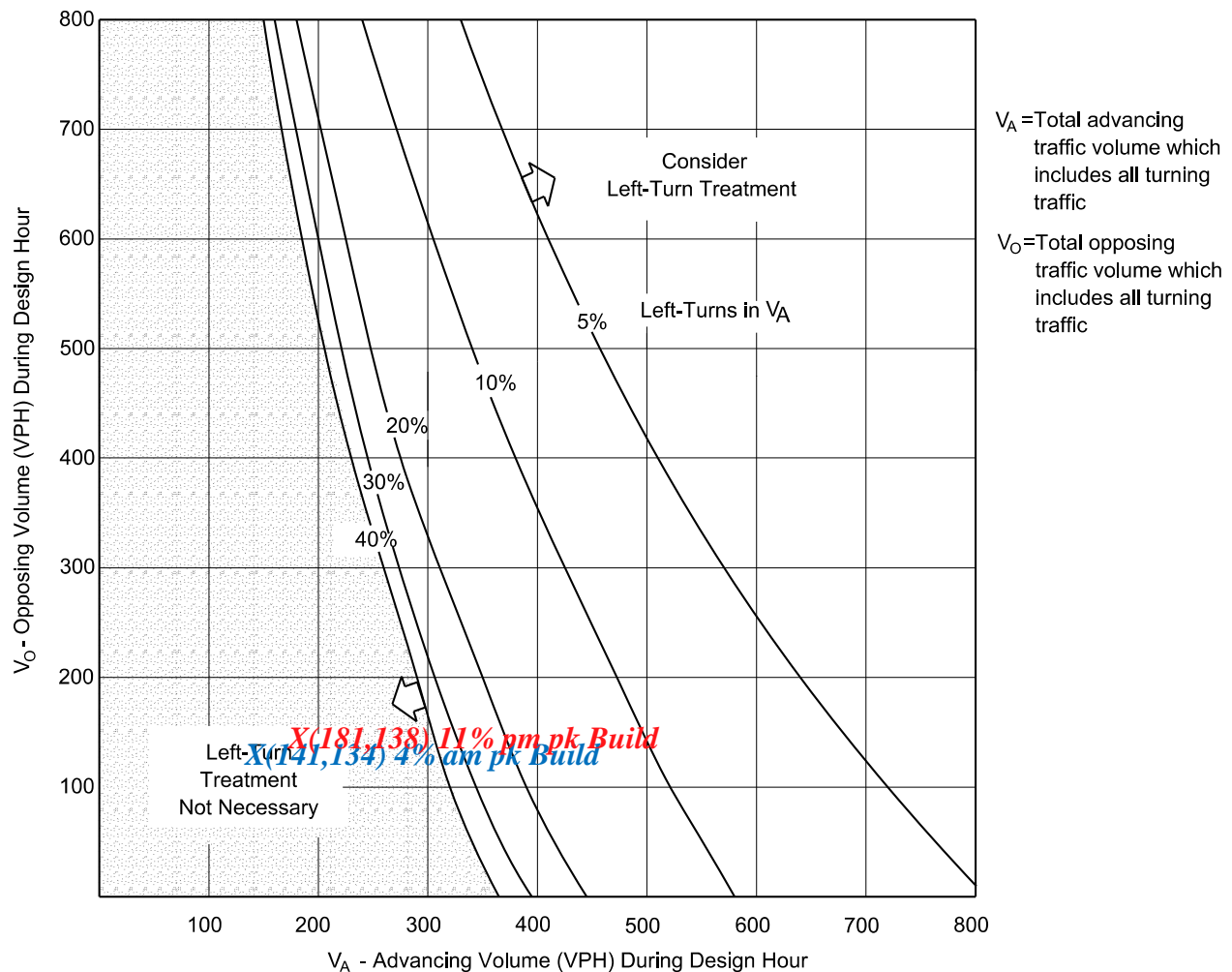
Design Speed	=	35 miles per hour
DHV	=	250 vehicles per hour
Right Turns	=	100 vehicles per hour

Problem: Determine if a right-turn lane is necessary.

Solution: To read the vertical axis, use $100 - 20 = 80$ vehicles per hour. The figure indicates that a right-turn lane is not necessary, unless other factors (e.g., high crash rate) indicate a lane is needed.

**GUIDELINES FOR RIGHT-TURN LANES AT UNSIGNALIZED INTERSECTIONS
ON TWO-LANE HIGHWAYS**

Figure 9.5-A



Lowndes Hill Rd @ Woodlark St

Instructions:

1. The family of curves represents the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.
3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME GUIDELINES FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON TWO-LANE HIGHWAYS (40 mph)

Figure 9.5-G



July 20, 2021

DHD Riley, LLC
Attn: Mr. Drew Schaumber
drew@schaumberdevelopment.com

**Subject: Site Assessment and Aquatic Resources Delineation
The Riley at Overbrook - Parcel #0195.00-01-002.01
Greenville County, South Carolina**

RLC# 21-111

Dear Mr. Schaumber:

At your request, Resource & Land Consultants (RLC) conducted an aquatic resource assessment and delineation on the ± 5.9 -acre Parcel #0195.00-01-002.01 located on Lowndes Hill Road in Greenville, South Carolina (34.852290°, -82.368565°). Current US Army Corps of Engineers (USACE) interpretations of the *Regional Supplement to the Wetland Delineation Manual: Eastern Mountains and Piedmont Region Version 2.0* were applied in the identification of wetlands and waters of the U.S. within the study area. This evaluation also included the review of the USGS Topographic Map, NRCS Soil Survey, USFWS National Wetlands Inventory, available aerial imagery, and NOAA Topographic Lidar for the project area.

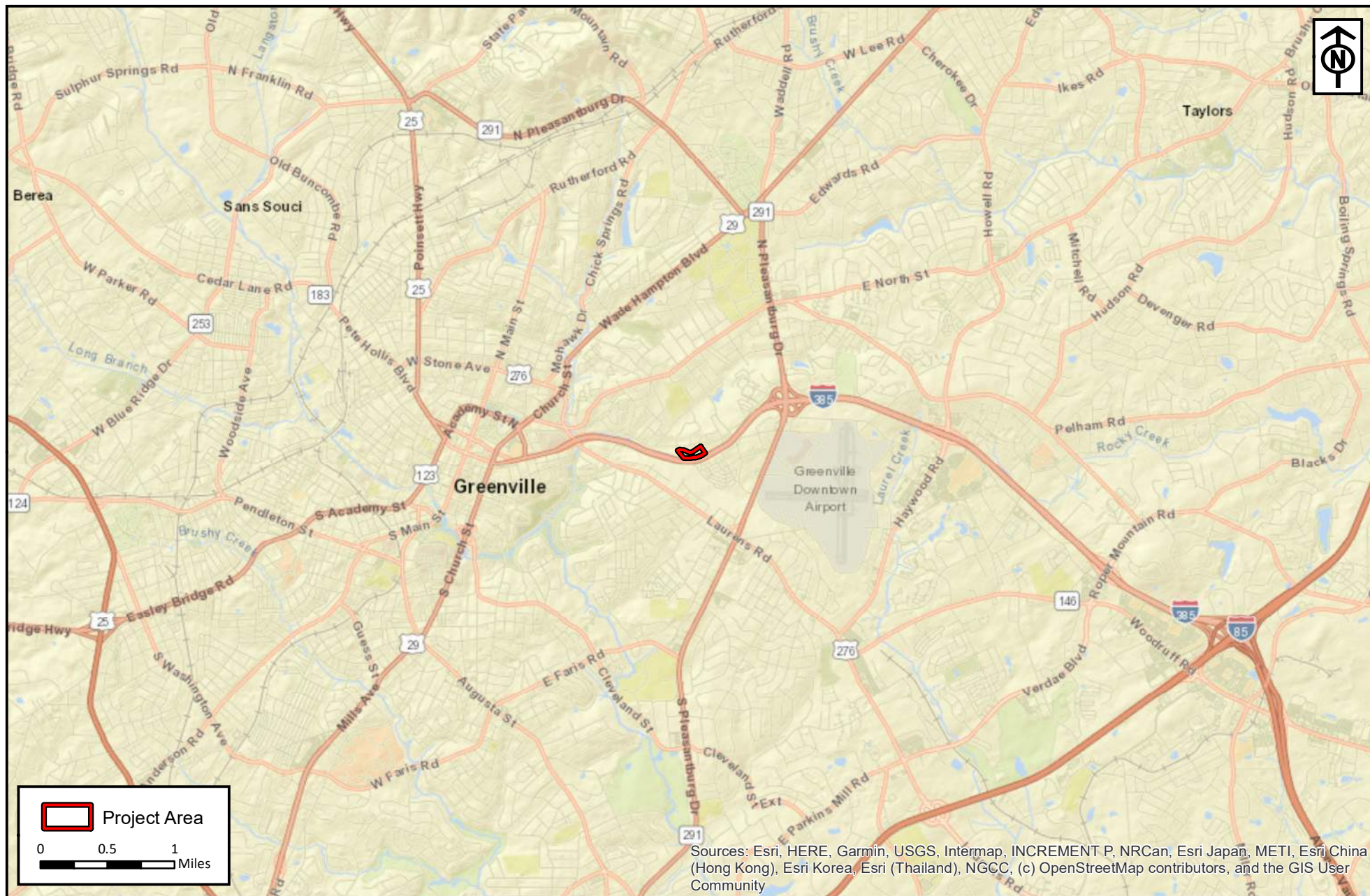
Based on our delineation on April 20, 2021 and review of the available materials, it is our opinion that the ± 5.9 -acre project area contains only uplands and does not contain jurisdictional or non-jurisdictional waters of the U.S. Please note that this determination has not been verified by the USACE and impacts to waters of the U.S., as determined by the USACE, may require permit authorization.

RLC appreciates the opportunity to assist with this project. Should you have any questions or require any additional information, please do not hesitate to contact us at (912) 443-5896.

Sincerely,

Russell Parr, Sr.
Project Manager
Resource & Land Consultants

Enclosure: Figures 1-7



RLC Project No.:	21-111
Figure No.:	1
Prepared By:	JP
Sketch Date:	7/20/2021
Map Scale :	1 inch = 1 miles

The Riley at Overbrook

Greenville County, South Carolina

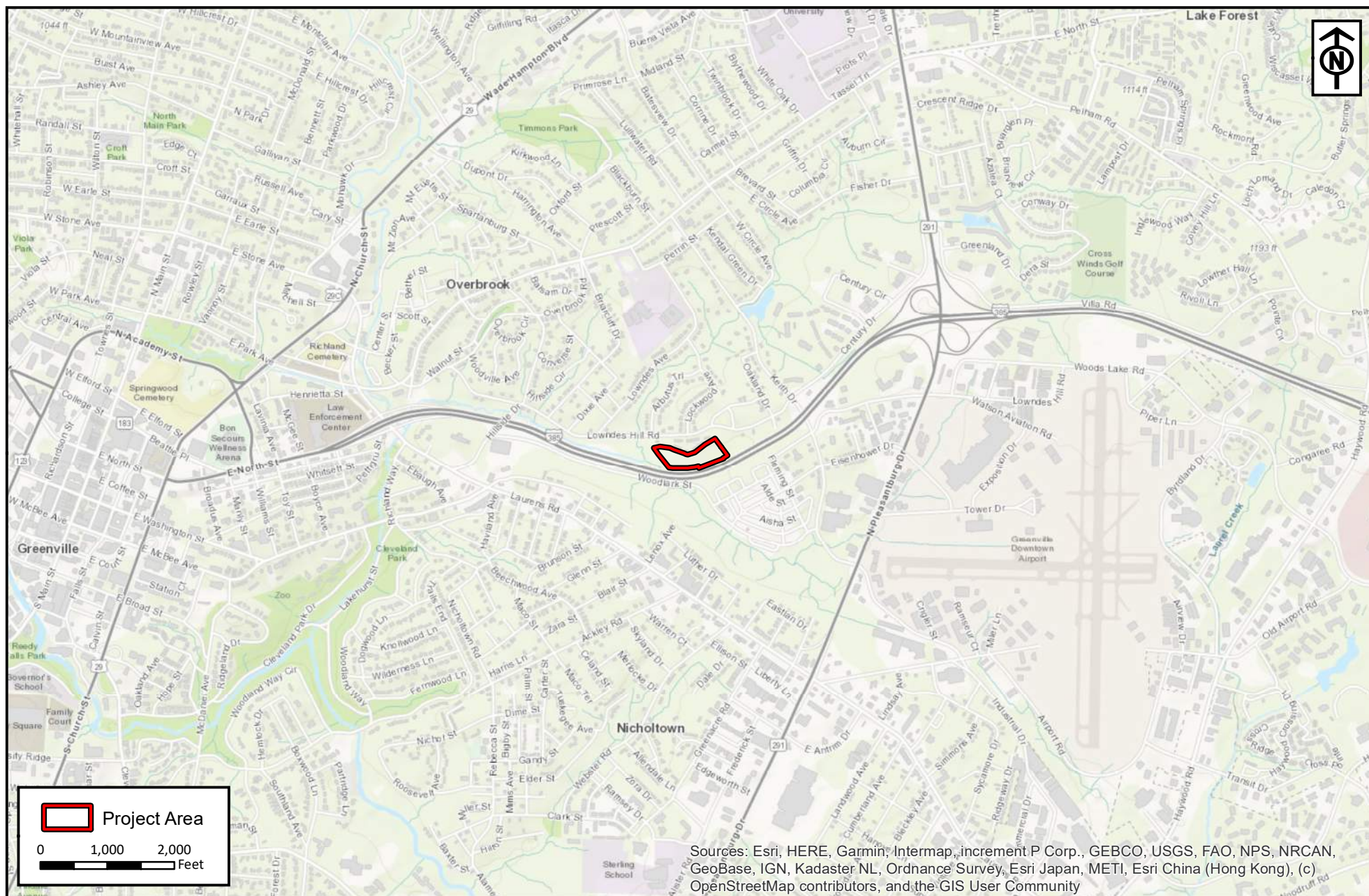
Project Location Map

Prepared For: DHD RILEY, LLC



RESOURCE+LAND CONSULTANTS

41 Park of Commerce Way, Ste 101
Savannah, GA 31405
tel 912.443.5896 fax 912.443.5898



RLC Project No.: 21-111
 Figure No.: 2
 Prepared By: JP
 Sketch Date: 5/4/2021
 Map Scale : 1 inch = 2,000 feet

The Riley at Overbrook

Greenville County, South Carolina

Topographic Map

Prepared For: DHD RILEY, LLC



RESOURCE+LAND CONSULTANTS

41 Park of Commerce Way, Ste 101
 Savannah, GA 31405
 tel 912.443.5896 fax 912.443.5898



RLC Project No.: 21-111
Figure No.: 4
Prepared By: JP
Sketch Date: 5/4/2021
Map Scale : 1 inch = 125 feet

The Riley at Overbrook

Greenville County, South Carolina

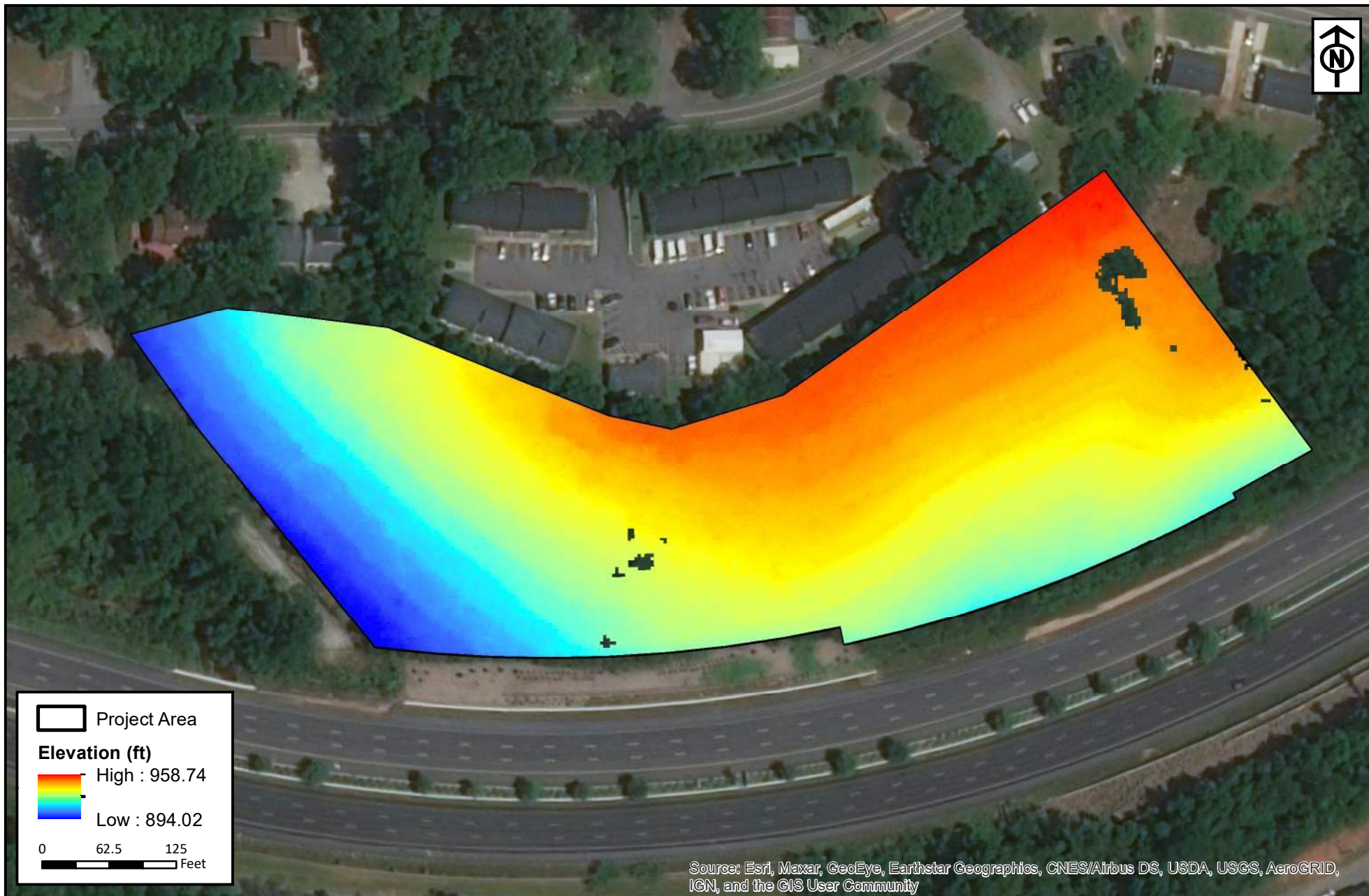
2018 ESRI World Imagery

Prepared For: DHD RILEY, LLC



**RESOURCE+LAND
CONSULTANTS**

41 Park of Commerce Way, Ste 101
Savannah, GA 31405
tel 912.443.5896 fax 912.443.5898



RLC Project No.:	21-111
Figure No.:	5
Prepared By:	JP
Sketch Date:	7/20/2021
Map Scale :	1 inch = 125 feet

The Riley at Overbrook

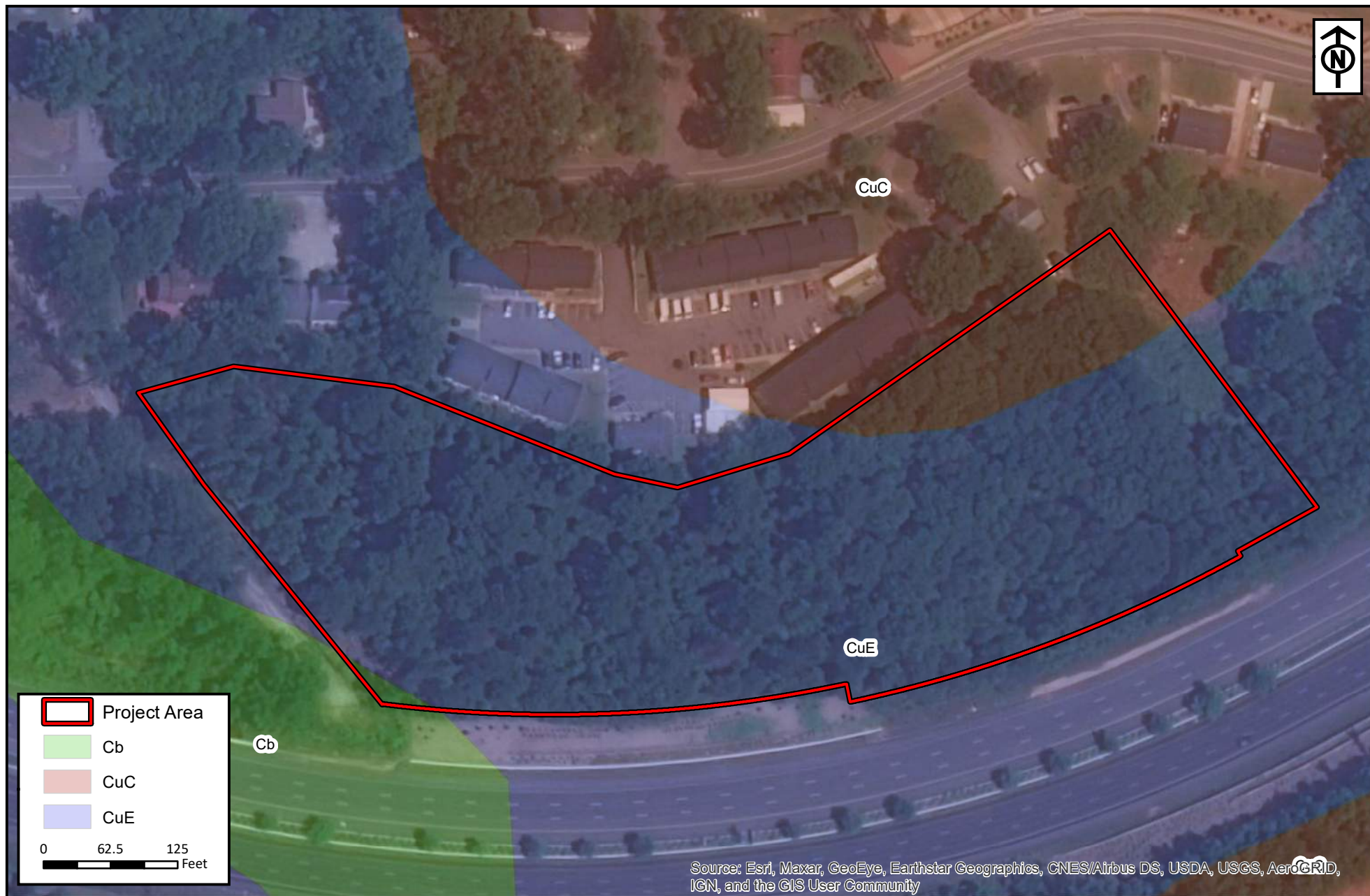
Greenville County, South Carolina

NOAA Topographic Lidar

Prepared For: DHD Riley, LLC

RESOURCE+LAND
CONSULTANTS

41 Park of Commerce Way, Ste 101
Savannah, GA 31405
tel 912.443.5896 fax 912.443.5898

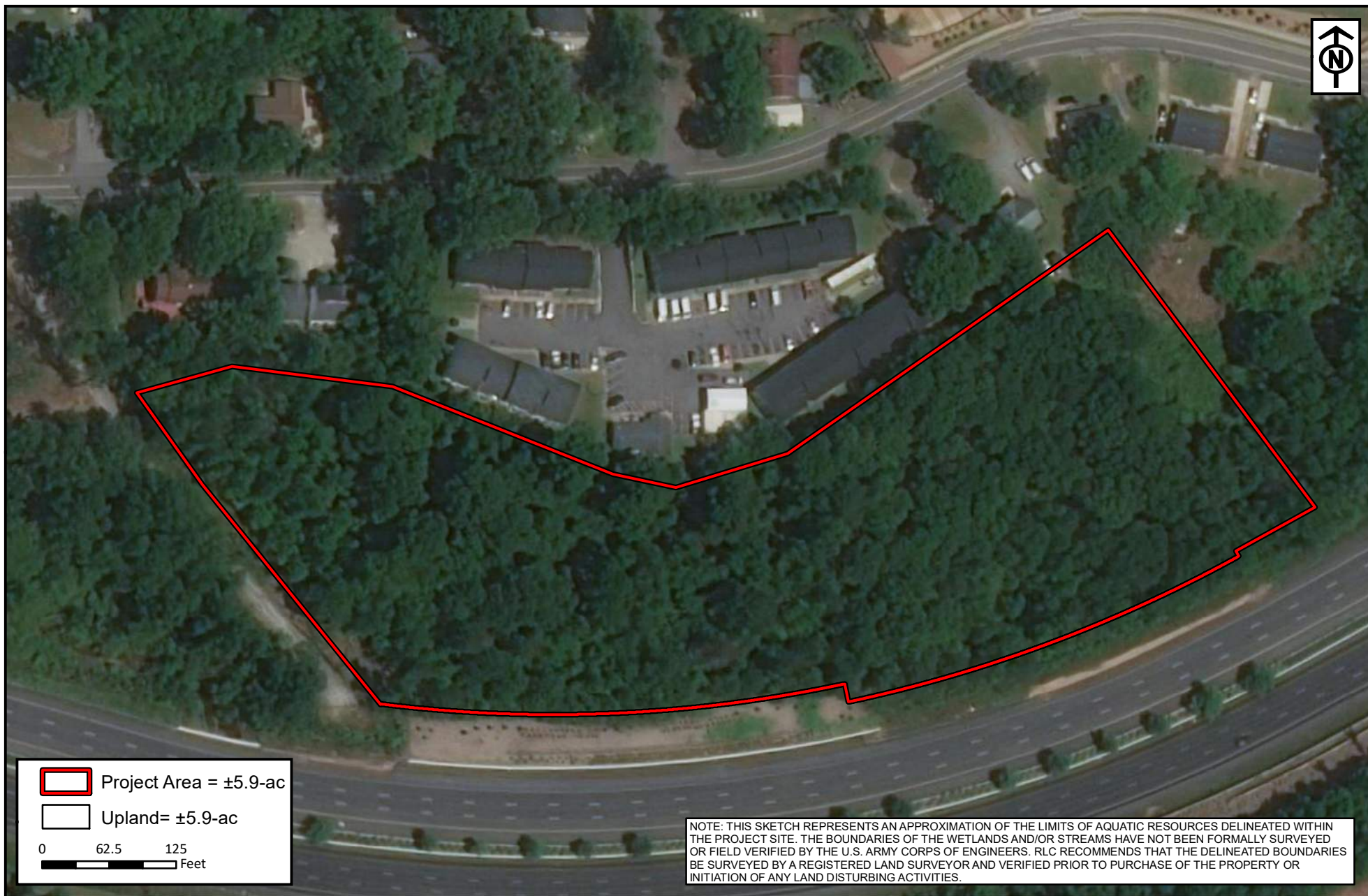


RLC Project No.:	21-111
Figure No.:	6
Prepared By:	JP
Sketch Date:	7/20/2021
Map Scale :	1 inch = 125 feet

The Riley at Overbrook
Greenville County, South Carolina

NRCS Soil Map
Prepared For: DHD Riley, LLC

RLC	RESOURCE+LAND CONSULTANTS
	41 Park of Commerce Way, Ste 101
	Savannah, GA 31405
	tel 912.443.5896 fax 912.443.5898



RLC Project No.:	21-111
Figure No.:	7
Prepared By:	RP
Sketch Date:	7/20/2021
Map Scale :	1 inch = 125 feet

The Riley at Overbrook
Greenville County, South Carolina

**Aquatic Resource
Delineation Exhibit**
Prepared For: DHD RILEY, LLC

**RESOURCE+LAND
CONSULTANTS**
41 Park of Commerce Way, Ste 101
Savannah, GA 31405
tel 912.443.5896 fax 912.443.5898

Threatened & Endangered Species Survey

Lowndes Hill Road Development
Southwest of Lowndes Hill Road and Lockwood Avenue
Greenville, Greenville County, South Carolina

December 17, 2021

Terracon Project No. 86217332



Prepared for:

BRD Land & Investment, LP
Fort Mill, South Carolina

Prepared by:

Terracon Consultants, Inc.
Greenville, South Carolina

Offices Nationwide
Employee-Owned

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Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

December 17, 2021



Mr. Drew Schaumber
Schaumber Development, LLC
1 Chick Springs Road, Suite 115
Greenville, South Carolina 29609

Telephone: (202) 905-7722
Email: drew@schaumberdevelopment.com

Re: Threatened & Endangered Species Survey
Lowndes Hill Road Development
Southwest of Lowndes Hill Road and Lockwood Avenue
Greenville, Greenville County, South Carolina 29607
Terracon Project No. 86217332

Dear Mr. Schaumber:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Threatened & Endangered Species Survey report for the above-referenced site. This assessment was performed in accordance with Terracon's Supplement to Agreement for Services dated December 7, 2021.

We appreciate the opportunity to be of service to you on this project. If there are any questions regarding this report or if we may be of further assistance, please contact us at (864) 292-2901.

Sincerely,

Terracon

A handwritten signature in blue ink, reading "Katherine L. Weatherly".

Katherine L. Weatherly
Project Scientist

A handwritten signature in blue ink, reading "Andy Ruocco". To the right of the signature, the word "FOR:" is written in blue capital letters.

Andy Ruocco
Principal / Environmental Manager

Terracon Consultants Inc. 72 Pointe Cir Greenville, SC 29615-3506

P 864-292-2901 F 864-292-6361 terracon.com



Environmental



Facilities



Geotechnical



Materials

TABLE OF CONTENTS	
1.0	INTRODUCTION 1
1.1	Site Location 1
1.2	Existing Conditions 1
1.3	Proposed Project 2
2.0	RECORDS REVIEW 2
2.1	Federal Status Explanation 3
2.1.1	At-Risk Species 3
2.1.2	Critical Habitat 3
2.2	Coordination with SCDNR 4
3.0	HABITAT ASSESSMENT 4
3.1	Mesic Mixed Hardwood Forest 4
4.0	EFFECT DETERMINATIONS 4
4.1	Mammals 5
4.2	Reptiles 6
4.3	Flowering Plants 6
4.4	Lichens 9
5.0	FINDINGS 10
6.0	CONCLUSIONS 10
7.0	GENERAL COMMENTS 10
8.0	REFERENCES 11

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, South Carolina

December 17, 2021 ■ Terracon Project No. 86217332



APPENDICES

APPENDIX A

Exhibit 1 - Site Location Map

Exhibit 2 - Topographic Map

Exhibit 3 - USFWS NWI Map

Exhibit 4 - NRCS Soils Map

Exhibit 5 - Habitat Map

APPENDIX B

USFWS County List

USFWS IPaC Report

USFWS Clearance Letter

Coordination with SCDNR

Site Plan

APPENDIX C

Site Photographs

1.0 INTRODUCTION

The following report details methodology and an assessment of survey results for the threatened and endangered species survey completed on December 14, 2021 for the project site described below and depicted in Appendix A. This threatened and endangered species survey was conducted within the site boundaries and immediate vicinity of the site to determine the occurrence of, or potential for occurrence of animal and plant species recognized as threatened or endangered within the boundaries of the referenced site. Completion of this survey was directed by and complies with the Federal Endangered Species Act (ESA) of 1973.

1.1 Site Location

The approximate 5.7-acre site is located southwest of Lowndes Hill Road and Lockwood Avenue in Greenville, Greenville County, South Carolina. The approximate center of the review area is located at 34.852311 latitude and -82.368742 longitude. The site is identified as Greenville County Parcel No. 0195000100201.

The project site is located with the Southern Outer Piedmont (45b) level IV Ecoregion within the Piedmont level III Ecoregion of South Carolina. The irregular plains of the Southern Outer Piedmont has less relief, and less precipitation than the adjacent, higher elevation Southern Inner Piedmont Ecoregion. Planted pine plantations are common in the Southern Outer Piedmont which consist of predominantly of loblolly pine (*Pinus taeda*) and shortleaf pine (*Pinus echinata*). Areas which have not been heavily altered by humans consist of mixed pine-hardwood woodlands. Gneiss, schist and granite are the dominant rock types, covered with deep saprolite and mostly red, clayey subsoils. The majority of soils are Kanhapludults.

1.2 Existing Conditions

At the time of site reconnaissance, land cover primarily consisted of wooded areas with minimal to moderate understory growth and recently cleared trails crisscrossing throughout the site.

The site is bordered by apartments and residential houses to the north. Wooded areas and residential houses are located to the east. Interstate-385 followed by wooded areas and residential development are located to the south. An abandoned road followed by an undeveloped floodplain around Richland Creek is located to the west. The wooded area onsite is an even mixture of hardwoods and pines and cedars. The general existing conditions are depicted on Exhibit 5 in Appendix A, and photographs of the site taken during the field visit are included in Appendix C.

1.3 Proposed Project

Proposed development plans provided by the client indicate development of a multi-family residential complex across the entire site to consist of two apartment buildings containing 48 units, a clubhouse, playground, two ponds and associated paved parking areas and drives. A copy of the proposed site plan is included in Appendix B. It should be noted the aquatic resources were delineated by Resources and Land Consultants (RLC) on July 20, 2021 where the site was observed to be entirely upland. It is unknown if verification from the US Army Corps of Engineers has been obtained as of the issuance of this report.

2.0 RECORDS REVIEW

The following federally threatened, and endangered species are listed by the United States Fish and Wildlife Service (USFWS) South Carolina Ecological Services Field Office and as potentially occurring within the project boundaries based on the information obtained from the Information, Planning, and Conservation (IPaC) search engine.

Table 1: USFWS IPaC Official Species List

Class	Listed Species	Federal Status
Mammals	Northern Long-eared Bat (<i>Myotis septentrionalis</i>)*	Threatened
Reptiles	Box Turtle (<i>Emydoidea blandingii</i>)*	Threatened
Insects	Monarch Butterfly (<i>Danaus plexippus</i>)*	Candidate
Flowering Plants	Bunched Arrowhead (<i>Sagittaria fasciculata</i>)*	Endangered
	Dwarf-flowered Heartleaf (<i>Hexastylis naniflora</i>)*	Threatened
	Mountain Sweet Pitcher-plant (<i>Sarracenia rubra</i> ssp. <i>jonesii</i>)*	Endangered
	Small Whorled Pogonia (<i>Isotria medeoloides</i>)*	Threatened
	Swamp Pink (<i>Helonias bullata</i>)*	Threatened
	White Fringeless Orchid (<i>Platanthera integrilabia</i>)*	Threatened
	White Irisette (<i>Sisyrinchium dichotomum</i>)*	Endangered
Lichens	Rock Gnome Lichen (<i>Gymnoderma lineare</i>)*	Endangered

Sources: USFWS – IPaC Official Species List generated on December 10, 2021 (Consultation Code: 04ES1000-2022-SLI-0210)

*= SCDNR Rare, Threatened, and Endangered Species and Communities Known to Occur in Greenville County¹

¹ <http://www.dnr.sc.gov/species/county.html>

2.1 Federal Status Explanation

According to the ESA threatened species are those species “which are likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range”. Species listed as endangered are considered to have a higher risk of extinction, and are defined by the ESA as “any species which is in danger of extinction throughout all or a significant portion of its range”.

2.1.1 At-Risk Species

According the USFWS list of At-Risk, Candidate, Endangered, and Threatened Species for Greenville County (included in Appendix B), there are a total of eight species in Greenville County which have been federally designated as an At-Risk Species (ARS). These species include: Golden-winged warbler (*Vermivora chrysoptera*), Broad River spiny crayfish (*Cambarus spicatus*), mimic crayfish (*Distocambarus carlsoni*), Little brown bat (*Myotis lucifugus*), Tri-colored bat (*Perimyotis subflavus*), Carolina hemlock (*Tsuga caroliniana*), purple pitcher plant (*Sarracenia purpurea* var. *montana*), and the sun-facing coneflower (*Rudbeckia heliopsidis*). ARS are species in which the USFWS has petitioned to list but are not currently federally protected and do not require Section 7 Consultation at this time. These species are not evaluated, or discussed further in this survey report. In the event of an ARS being federally listed, informal and/or formal consultation with USFWS may be required if the species, or suitable habitat occurs on the project site or vicinity.

Monarch butterflies (*Danaus plexippus*) have bright orange wings surrounded by a black border and covered with black veins. The black border has a double row of white spots, present on the upper side of the wings. Habitat for the Monarch Butterfly is diverse, as long as milkweed and flowering plants are present. Adult monarchs are sexually dimorphic, with males having narrower wing venation and scent patches. The bright coloring of a monarch serves as a warning to predators that eating them can be toxic. During the breeding season, monarchs lay their eggs on their obligate milkweed host plant (primarily *Asclepias* spp.), and larvae emerge after two to five days.

Although milkweed was not specifically identified during the field survey, suitable habitat is located on the site for a variety of milkweed species. In turn, if suitable habitat for milkweed is on the site then suitable habitat for the Monarch Butterfly is as well. However, the Monarch Butterfly is listed as a Candidate species and is not federally protected at this time.

2.1.2 Critical Habitat

On December 10, 2021 Terracon utilized the USFWS IPaC search engine to identify critical habitat that may occur on the site. According to IPaC (consultation code: 04ES1000-2022-SLI-0210), there are no critical habitats, national wildlife refuges or fish hatcheries within the project boundaries. A copy of the USFWS IPaC report is included in Appendix B.

2.2 Coordination with SCDNR

Terracon contacted the South Carolina Department of Natural Resources (SCDNR) Heritage Trust Program for technical assistance regarding documented occurrences of rare, threatened or endangered species on the site or in the vicinity of the site. Based on the response provided by SCDNR, dated December 10, 2021 there are no federally listed species, state listed species, or Heritage 'watch list' species documented on the site. One At-Risk species (American Bumble Bee *Bombus pensylvanicus*) and two state protected species (Snail Bullhead *Ameiurus brunneus*, Flat Bullhead *Ameiurus platycephalus*) are within a 2-mile radius of the site. As noted by SCDNR, their records are not assumed complete nor should they be assumed comprehensive; therefore, field surveys should be conducted for more thorough evaluations. A copy of the response provided by the SCDNR Heritage Trust Program is included in Appendix B.

3.0 HABITAT ASSESSMENT

A field survey was conducted on December 14, 2021 by Ms. Katherine Weatherly to identify suitable habitat for federally threatened and endangered species protected by the ESA. During the field survey, plant communities and habitats were observed and noted to determine if they matched habitat types where the listed species have the potential to occur. The existing site conditions are depicted in Appendix A Exhibit 5. The habitat classifications and associated descriptions are discussed below.

3.1 Mesic Mixed Hardwood Forest

The mesic mixed hardwood forest habitat is distributed throughout the entirety of the site. The canopy trees in the mesic mixed hardwood forest habitat consist of a mixture of various softwood and hardwood species mainly including: water oak (*Quercus nigra*), American beech (*Fagus grandifolia*), eastern red cedar (*Juniperus virginiana*), sweetgum (*Liquidambar styraciflua*), and loblolly pine (*Pinus taeda*). The understory has recently been partially cleared with remaining species dominated by: Chinese privet (*Ligustrum sinense*), American holly (*Ilex opaca*), sacred bamboo (*Nandina domestica*), kudzu (*Pueraria montana*), muscadine (*Vitis rotundifolia*), and English ivy (*Hedera helix*). Photographs in Appendix C are representative of the habitat designated as mesic mixed hardwood forest on the site.

4.0 EFFECT DETERMINATIONS

The following determinations were made for each species, based on the likelihood of that species occurring on the site, or being impacted by development of the site. These effect determinations are listed in order of priority from lowest to highest, and are based on USFWS standard language implemented for Section 7 Consultation.

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, South Carolina

December 17, 2021 ■ Terracon Project No. 86217332



- “No effect” – will not affect listed species
- “Not likely to adversely affect” - effects are expected to be completely beneficial, discountable or insignificant
- “Likely to adversely affect” - adverse effects to listed species may occur

The following is a brief description of each federally listed threatened and endangered species located on the IPaC Official Species List for the site. The site was surveyed for each of the species and its recognized habitat. Comments are provided regarding results of the onsite survey with regard to habitat and occurrence.

4.1 Mammals

Northern Long-Eared Bat (*Myotis septentrionalis*)

The northern long-eared bat has large distinct ears, and roosts in caves, mines or large trees. They are typically seen through cracks or crevices with only the ears and nose visible, or at dusk dark flying through the air catching macroinvertebrates such as: beetles, caddisflies, moths, flies, or leafhoppers. The northern long-eared bat has only recently been discovered in the coastal plain area of South Carolina. Prior to the fall of 2016 it was thought to only occur in the Upstate.

Compared to other species of bats, the northern long-eared bat is the most susceptible to the fungal disease known as white-nose-syndrome. This disease is the main cause for the decline of this species. In accordance with the Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions that May Affect Northern Long-Eared Bats, Terracon determined that the site is located inside the white-nose syndrome zone. Generally, the white-nose syndrome zone is determined based on a review of a white-nose syndrome zone map prepared by USFWS. Based on previous correspondence with the USFWS South Carolina Ecological Field Office, all counties within South Carolina are within the white-nose syndrome zone. As a result, the Northern Long-Eared Bat 4(d) Rule may be applied. Therefore, if the site contains suitable habitat for the northern long eared bat but is not located within 150 feet from a known roost tree, the project has met the criteria for the 4(d) rule. As a result, any incidental take is therefore exempt.

Individuals or communities of the northern long-eared bat were not observed during the site visit. Based on the forested habitat detailed above in the Mesic Mixed Hardwood Forest habitat located on the site and the broad habitat described by USFWS, there is a potential for the northern long-eared bat to occur within the site boundaries. Terracon has determined that the proposed project *may affect, not likely to adversely affect* the northern long-eared bat.

4.2 Reptiles

Bog Turtle (*Clemmys muhlenbergii*)

The bog turtle measures 3 to 4 inches and can be identified by a mahogany-colored shell and bright yellow-orange blotches located on both sides of the head. Bog turtles live in a mosaic of open, sunny, wet meadows, spring-fed wetlands and scattered dry areas. The variety of wet and dry places meets the basic needs of the bog turtle: basking, foraging, nesting, hibernating and finding shelter. Sunny open areas provide the warmth needed to regulate the turtle's body temperature and incubate its eggs. Soft muddy areas allow turtles to escape, both from predators and extreme temperatures. Dry areas provide a place to nest. Springs and seeps that flow year-round ensure that bog turtles will not freeze during the winter.

Bog turtles are active from April through October and feed on worms, slugs, beetles, snails, millipedes, seeds and carrion. During summer months, bog turtles build nests in sphagnum moss or on clumps of sedges above the water level of a wetland. The eggs hatch from late August through September. In October, bog turtles nestle into abandoned burrows, logs, mud or tree roots, where they lie dormant through the winter.

There are no aquatic features, including wetlands, or open sunny meadows on the site. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the bog turtle.

4.3 Flowering Plants

Bunched Arrowhead (*Sagittaria fasciculata*)

Bunched arrowhead is a small herbaceous plant growing 15-16 inches tall in saturated soils. It's the only *Sagittaria* species in the Southern Appalachians that does not have arrowhead-shaped leaves. Emergent leaves are broad and tapered at the tip and up to 12 inches long and 1-2 inches wide. The white flowers begin blooming in mid-May and continue through July. The fruits mature a few weeks after flowering. Bunched arrowhead occurs in undisturbed sites that are typically located just below the origin of slow, clean, continuous seeps on gently sloping terrain in deciduous woodlands.

There are no aquatic features, including wetlands, on the site. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the bunched arrowhead.

Dwarf-flowered Heartleaf (*Hexastylis naniflora*)

The dwarf-flowered heartleaf is a low-growing evergreen perennial plant. It has heart-shaped leaves that are four to five inches long, dark green and leathery, supported by long thin leaf stems connecting it to an underground stem. The jug-shaped flowers are usually beige to dark brown or purple and appear from mid-March to early June. The flowers are small and inconspicuous and are found near the base of the leaf stems, often buried beneath the leaf litter. The dwarf-flowered heartleaf grows in acidic soils along bluffs and adjacent slopes, in boggy areas next to streams and creek heads, and along the slopes of nearby hillsides and ravines in the upper piedmont region of Western North Carolina and upstate South Carolina.

Although the site contained sloping features and acidic soils, the entire site contains dry upland soils where no aquatic features are present. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the dwarf-flowered heartleaf.

Mountain Sweet Pitcher Plant (*Sarracenia rubra* ssp. *jonesii*)

Mountain sweet pitcher plant is a carnivorous perennial herb with tall, hollow pitcher-shaped leaves and red sweet-smelling flowers. The hollow leaves contain liquid and enzymes. When insects fall in to the pitchers, they're digested and the nutrients are incorporated into the plant's tissues. The evolutionary role of carnivory in such plants is not fully understood, but some evidence indicates that absorption of minerals from insect prey may allow carnivorous species to compete in nutrient-poor habitats. The unusual red flowers (yellow in rare cases) appear from April to June, with fruits ripening in August. Flowering plants reach heights of 29 inches. Like other pitcher plants, it has rhizomes that are probably long-lived and capable of persisting and reproducing vegetatively for decades without producing seedlings. Habitat for the mountain sweet pitcher plant consists of mountain bogs.

There are no aquatic features, including wetlands, on the site. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the mountain sweet pitcher plant.

Small Whorled Pogonia (*Isotria medeoloides*)

Small-whorled pogonia has a greenish-white stem that grows to between 3 and 13 inches tall. It gets its common name from the 5 or 6 grayish-green leaves that are displayed in a single whorl around the stem. When the leaves are well developed, a single flower or sometimes a pair rises from the center of the circle of leaves. The flowers are yellowish-green with a greenish-white lip. Each flower has three sepals of equal length that spread outward. The flowers are scentless, lack nectar, and are primarily self-pollinating. The pogonia produces fruit that ripens in the fall. The seeds contain very little food reserves and therefore need to fall on soil containing mycorrhizal fungi in order for the seed to germinate and seedlings to become established. An over-wintering

vegetative bud may form in late August or September. Occasionally small whorled-pogonia will reproduce vegetatively, without the use of seeds.

Habitat for the species can be limited by shade. The species seems to require small light gaps, or canopy breaks, and generally grows in areas with sparse to moderate ground cover. Too many other plants in an area can be harmful to this plant. This orchid typically grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed-deciduous or mixed-deciduous/coniferous forests that are generally in second- or third-growth successional stages. The soils in which it lives are usually acidic, moist, and have very few nutrients.

The site contains dry upland soils, and although cleared trails have become a recent development on the site, the intact understory is moderately thick and would provide too much shade for this species. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the small whorled pogonia.

Swamp Pink (*Helonias bullata*)

Swamp pink is only found in wetlands along streams and seepage areas in freshwater swamps including mountain bogs, swampy forested wetlands bordering small streams, wet meadows, and spring seepage areas. It is a perennial herb in the lily family which has a basal rosette of evergreen, strap-like leaves and an upright pink to lavender flower head. The tall flower stalk (up to 4.5 feet) appears from March to May. During the winter the leaves often turn reddish brown and lie flat or slightly raised above the ground. These winter leaves are often hidden by leaf litter, but a visible button in the center of the leaves represents the next season's flower head. Although the plant can reproduce by seed, most of its reproduction is by vegetative expansion of established plants.

There are no aquatic features, including wetlands, on the site. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the swamp pink.

White Fringeless Orchid (*Platanthera integrilabia*)

White fringeless orchid is a perennial herb that grows up to 24 inches tall. It has a single, light-green stem rising from a tuber. The leaves have smooth edges and tend to be long and narrow, with leaves lower on the plant being larger. The plant bears white flowers in a loose cluster at the end of the stem, and it flowers from late July through September with small fruit maturing in October. Habitat for the species consists of wet, boggy areas at the heads of streams and on sloping areas kept moist by groundwater seeping to the surface. It is often associated with Sphagnum in partially, but not fully, shaded areas.

There are no aquatic features, including wetlands, on the site. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the white fringeless orchid.

White Irisette (*Sisyrinchium dichotomum*)

White irisette is a perennial herb that lives in areas with partial sun. An individual white irisette plant is typically defined as a cluster of stems arising from fibrous roots. It generally grows from 10 to 16 inches tall and has winged stems. There may be 10 or more stems on one plant. White irisette flowers from late May through July. The seeds are very small and black; and 3 to 6 seeds are contained in each capsule. The species is found on mid-elevation slopes, characterized by open, dry to moderate moisture oak-hickory forests. White irisette usually grown in shallow soils on regularly disturbed sites (such as woodland edges and roadsides) and over rock, steep terrain.

The site contains deep to very deep soils, and, and although cleared trails have become a recent development on the site, the intact understory is moderately thick and would provide too much shade for this species on mid-elevation slopes. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the white irisette.

4.4 Lichens

Rock Gnome Lichen (*Gymnoderma lineare*)

Rock gnome lichen occurs in dense colonies of narrow strap-like lobes that are about 1 millimeter across and 1-2 centimeters long. These lobes are blue gray on the terminal upper surface, and generally shiny white on the lower surface, grading to black near the base. The fruiting bodies are born on the tips of these lobes, are black, and have been found from July through September. The primary means of propagation appears to be asexual, with colonies spreading clonally. Rock gnome lichen is primarily limited to vertical rock faces where seepage water from forest soils above flows during very wet times. Also found in areas of high humidity, such as high-elevation vertical rock faces that are frequently bathed in fog or in deep gorges at lower elevations. It appears the species needs a moderate amount of light, but that it cannot tolerate high-intensity solar radiation. It does well on moist, generally open, sites with northern exposures, but needs at least partial canopy coverage where the aspect is southern or western.

The site does not contain rock faces, vertical or semi-vertical, with moisture exposure by seeps or fog. The Mesic Mixed Hardwood Forest lacks suitable habitat and therefore development on the site will have *no effect* on the rock gnome lichen.

5.0 FINDINGS

According to the SCDNR Heritage Trust Program, there are no federally listed species, state listed species, or Heritage 'watch list' species documented on the site. One at risk and two state protected species are listed within a two-mile radius of the site. A copy of the response provided by SCDNR Environmental Program is included in Appendix B.

No federally threatened or endangered species were observed on the site during the field survey. However, due to the wide-ranging and generalized habitat description for the federally threatened northern long eared bat described by the USFWS, the mature forest on the site represents potential habitat for the species. In consideration of the USFWS habitat designation of mature forest as potential habitat for the species, the proposed project *may affect, not likely to adversely affect* the northern long eared bat.

6.0 CONCLUSIONS

Development of the site *may affect, not likely to adversely affect* the northern long-eared bat. In accordance with the *Key to the Northern Long-Eared Bat 4(d) Rule for Federal Actions that May Affect Northern Long-Eared Bats*, and previous correspondence with USFWS, Terracon determined that the site is located inside the white-nose syndrome zone. As a result, the Northern Long-Eared Bat 4(d) Rule may be applied. Because the site is not located within 150 feet from a known roost tree, nor is the site located within 0.25 miles from a known hibernacula and winter roost, the project has met the criteria for the 4(d) rule. As a result, any incidental take is exempt.

The *may affect, not likely to adversely affect* conclusion of this assessment regarding the northern long-eared bat does not require coordinated with USFWS. The USFWS South Carolina Ecological Services Field Office maintains a clearance letter that applies to all projects that meet certain criteria. This letter serves as the USFWS concurrence with the conclusions of the habitat assessment. A copy of this letter is included in Appendix B.

7.0 GENERAL COMMENTS

This survey was performed in accordance with generally accepted practices of this profession undertaken in similar studies at the same time and in the same geographical area. This report is for the exclusive use of the client for the project being discussed. No warranties, either expressed or implied, are intended or made. It should be noted that USFWS has specific survey windows and time periods established for surveys of listed species. The findings of this survey are constrained by the project schedule, which may not coincide with the applicable survey windows. USFWS may require species to be reevaluated within the established surveys windows. In conducting the limited scope of services described herein, certain sources of information and public records were reviewed. No biological assessment can wholly eliminate uncertainty regarding the potential for concerns in connection with a project.

8.0 REFERENCES

Griffith, G.E., Omernik, J.M., Comstock, J.A., Glover, J.B., and Shelburne, V.B., 2002, Ecoregions of South Carolina, U.S. Environmental Protection Agency, Corvallis, OR (map scale 1:1,500,000).

Information, Planning, and Conservation (IPAC) online screening tool (December 10, 2021).

"South Carolina List of At-Risk, Candidate, Endangered, and Threatened Species – Greenville County" USFWS South Carolina Ecological Services Field Office.
Accessed December 15, 2021

APPENDIX A

Exhibit 1 – Site Location Map

Exhibit 2 - Topographic Map

Exhibit 3 - USFWS NWI Map

Exhibit 4 - NRCS Soils Map

Exhibit 5 - Habitat Map




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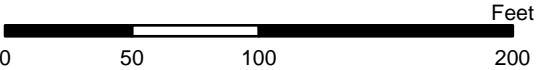
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 Project Site Boundary

DATA SOURCES:
ESRI WMS - World Aerial Imagery, OpenStreetMap



Project No.:
86217111
Date:
Dec 2021
Drawn By:
MDP
Reviewed By:
AR



72 Pointe Circle
Greenville, SC 29615
PH: (864) 292-2901
terracon.com

Habitat Map

Lowndes Hill Road Development
Southwest of Lowndes Hill Rd and Lockwood Ave
Greenville, Greenville County, South Carolina

Exhibit

)

APPENDIX B

**USFWS County List
USFWS IPaC Report
USFWS Clearance Letter
Coordination with SCDNR
Site Plan**

GREENVILLE COUNTY

CATEGORY	COMMON NAME/STATUS	SCIENTIFIC NAME	SURVEY WINDOW/ TIME PERIOD	COMMENTS
Amphibians	None Found			
Birds	Golden-winged warbler (ARS)	<i>Vermivora chrysoptera</i>	April-July (nesting surveys)	Spring/Fall migration; variable throughout State
Crustaceans	Broad River spiny crayfish (ARS)	<i>Cambarus spicatus</i>	November-April	
	Mimic crayfish (ARS)	<i>Distocambarus carlsoni</i>	November-April	
Fishes	None Found			
Insects	Monarch butterfly (C)	<i>Danaus plexippus</i>	August-December	Overwinter populations departs: March-April
Mammals	Little brown bat (ARS)	<i>Myotis lucifugus</i>	Year round	Found in trees, rock crevices, and under bridges
	Northern long-eared bat (T)	<i>Myotis septentrionalis</i>	Year round	Winter surveys not as successful
	Tri-colored bat (ARS)	<i>Perimyotis subflavus</i>	Year round	Found in mines and caves in the winter
Mollusks	None Found			
Plants	Bunched arrowhead (E)	<i>Sagittaria fasciculata</i>	Mid May-July	
	Carolina hemlock (ARS)	<i>Tsuga caroliniana</i>	Year around	
	Dwarf-flowered heartleaf (T)	<i>Hexastylis naniflora</i>	March-May	
	Mountain sweet pitcher plant (E)	<i>Sarracenia rubra ssp. jonesii</i>	April-October	
	Purple pitcher plant (ARS)	<i>Sarracenia purpurea var. montana</i>	April-May	
	Rock gnome lichen (E)	<i>Gymnoderma lineare</i>	Year around	
	Small whorled pogonia (T)	<i>Isotria medeoloides</i>	Mid May-early July	
	Sun-facing coneflower (ARS)	<i>Rudbeckia heliopsidis</i>	July-September	
	Swamp pink (T)	<i>Helonias bullata</i>	April-May	
	White fringeless orchid (T)	<i>Platanthera integrilabia</i>	Late July-October	
	White irisette or Reflexed blue-eyed grass (E)	<i>Sisyrinchium dichotomum</i>	Late May-July	
Reptiles	Bog turtle (S/A, T)	<i>Glyptemys muhlenbergii</i>	April 15-September 15	Active period

GREENVILLE COUNTY

*	Contact National Marine Fisheries Service (NMFS) for more information on this species.
**	The U.S. Fish and Wildlife Service (FWS) and NMFS share jurisdiction of this species.
ARS	Species that the FWS has been petitioned to list and for which a positive 90-day finding has been issued (listing may be warranted); information is provided only for conservation actions as no Federal protections currently exist.
ARS*	Species that are either former Candidate Species or are emerging conservation priority species.
BGEPA	Federally protected under the Bald and Golden Eagle Protection Act
C	FWS or NMFS has on file sufficient information on biological vulnerability and threat(s) to support proposals to list these species.
CH	Critical Habitat
E	Federally Endangered
P or P – CH	Proposed for listing or critical habitat in the Federal Register
S/A	Federally protected due to similarity of appearance to a listed species
T	Federally Threatened

These lists should be used only as a guideline, not as the final authority. The lists include known occurrences and areas where the species has a high possibility of occurring. Records are updated as deemed necessary and may differ from earlier lists.

For a list of State endangered, threatened, and species of concern, please visit <https://www.dnr.sc.gov/species/index.html>.



United States Department of the Interior



FISH AND WILDLIFE SERVICE

South Carolina Ecological Services

176 Croghan Spur Road, Suite 200

Charleston, SC 29407-7558

Phone: (843) 727-4707 Fax: (843) 727-4218

<http://www.fws.gov/charleston/>

In Reply Refer To:

December 10, 2021

Consultation Code: 04ES1000-2022-SLI-0210

Event Code: 04ES1000-2022-E-00502

Project Name: Lowndes Hill Road Development

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>;

<http://www.towerkill.com>; and

[http://](http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html)

www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
 - USFWS National Wildlife Refuges and Fish Hatcheries
 - Migratory Birds
-

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

South Carolina Ecological Services

176 Croghan Spur Road, Suite 200

Charleston, SC 29407-7558

(843) 727-4707

Project Summary

Consultation Code: 04ES1000-2022-SLI-0210

Event Code: Some(04ES1000-2022-E-00502)

Project Name: Lowndes Hill Road Development

Project Type: DEVELOPMENT

Project Description: Approximate 5.7 acre parcel with proposed residential development.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@34.8525164,-82.36853489457498,14z>



Counties: Greenville County, South Carolina

Endangered Species Act Species

There is a total of 11 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Reptiles

NAME	STATUS
Bog Turtle <i>Clemmys muhlenbergii</i> Population: U.S.A. (GA, NC, SC, TN, VA) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6962	Similarity of Appearance (Threatened)

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Bunched Arrowhead <i>Sagittaria fasciculata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1720	Endangered
Dwarf-flowered Heartleaf <i>Hexastylis naniflora</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2458	Threatened
Mountain Sweet Pitcher-plant <i>Sarracenia rubra ssp. jonesii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4283	Endangered
Small Whorled Pogonia <i>Isotria medeoloides</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1890	Threatened
Swamp Pink <i>Helonias bullata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened
White Fringeless Orchid <i>Platanthera integrilabia</i> Population: No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1889	Threatened
White Irisette <i>Sisyrinchium dichotomum</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8097	Endangered

Lichens

NAME	STATUS
Rock Gnome Lichen <i>Gymnoderma lineare</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3933	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Migratory Birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Jul 31
Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31

NAME	BREEDING SEASON
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability Of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is $0.25/0.25 = 1$; at week 20 it is $0.05/0.25 = 0.2$.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

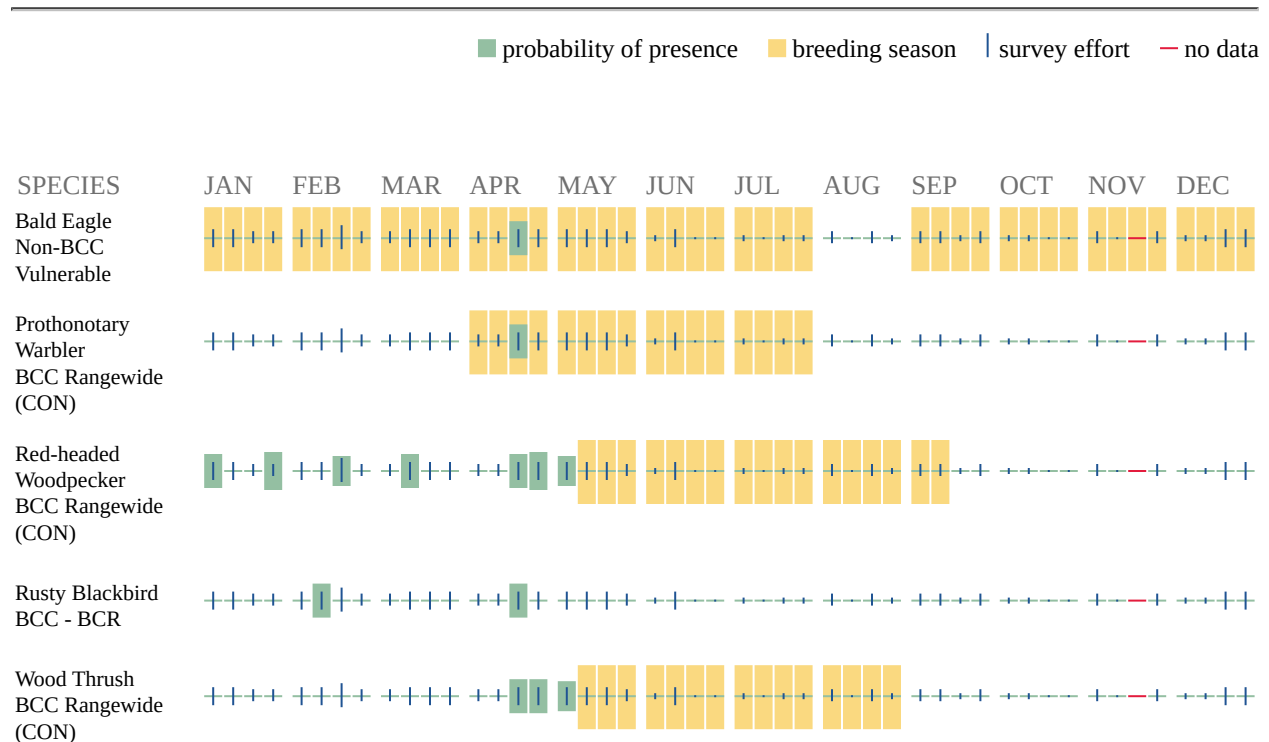
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>

- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

Migratory Birds FAQ

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab](#)

[of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be

aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.



United States Department of the Interior
FISH AND WILDLIFE SERVICE
176 Croghan Spur Road, Suite 200
Charleston, South Carolina 29407
May 30, 2019



U.S. Fish and Wildlife Service Clearance Letter for Species and Habitat Assessments

The U.S. Fish and Wildlife Service (Service) is one of two lead Federal Agencies mandated with the protection and conservation of Federal trust resources, including threatened and endangered (T&E) species and designated critical habitat as listed under the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*) (ESA). Development of lands in South Carolina have the potential to impact federally protected species. Accordingly, obligations under the ESA, National Environmental Policy Act (NEPA), Clean Water Act (CWA), Federal Power Act (FPA), and other laws, require project proponents to perform an environmental impact review prior to performing work on the site. These projects may include a wide variety of activities including, but not limited to, residential or commercial developments, energy production, power transmission, transportation, infrastructure repair, maintenance, or reconstruction of existing facilities on previously developed land.

Project applicants, or their designated representatives, may perform initial species assessments in advance of specific development proposals to determine the presence of T&E species and designated critical habitat that are protected under the ESA. These reviews are purposely speculative and do not include specific project or site development plans. Many of these speculative proposals are for previously developed or disturbed lands such as pasture lands, agricultural fields, or abandoned industrial facilities. Due to historical uses and existing conditions, these sites often do not contain suitable habitat to support T&E species. Therefore, an assessment may conclude that any future development of the site would have no effect to T&E species or adversely modify designated critical habitat. If the applicant, or their designee, determines there is no effect or impact to federally protected species or designated critical habitat, no further action is required under the ESA.

Clearance to Proceed

For all sites with potential projects that have no effect or impact upon federally protected species or designated critical habitat, no further coordination with the Service is necessary at this time. This letter may be downloaded and serve as the Service's concurrence or agreement to the conclusions of the species assessment. Any protected species survey or assessment conducted for the property should be included with this letter when submitting the project to Federal permitting agencies. Due to obligations under the ESA potential impacts must be reconsidered if: (1) new information reveals impacts of this identified action may affect any listed species or critical habitat in a manner not previously considered; (2) this action is subsequently modified in a manner which was not considered in this assessment; or (3) a new species is listed or critical habitat is designated that may be affected by the identified action.

Please note this Clearance Letter applies only to assessments in South Carolina but may not be used to satisfy section 7 requirements for projects that have already been completed or currently under construction.

If suitable habitat for T&E species or designated critical habitat occurs on, or nearby, the project site, a determination of no effect/impact may not be appropriate. In these cases, direct consultation requests with the Service should be initiated. Additional coordination with the Service may also be required if the potential project requires an evaluation under another resource law such as, but not limited to, NEPA, CWA, FPA, and the Coastal Zone Management Act.

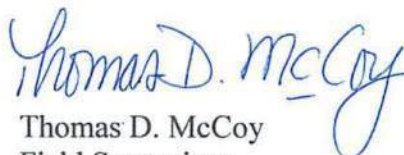
Northern Long-eared Bat Consideration

The Service issued a nationwide programmatic biological opinion (PBO) for the northern long-eared bat (*Myotis septentrionalis*, NLEB) on January 5, 2016. The PBO was issued pursuant to section 7(a)(2) of the ESA to address impacts that Federal actions may have on this species. In addition, the Service published a final 4(d) rule on January 14, 2016, which details special consultation provisions for Federal actions that may affect the NLEB. Briefly, the PBO and the 4(d) rule allow for "incidental" take of the NLEB throughout its range under certain conditions. Take is defined in section 3 of the ESA as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Further, incidental take is defined as take that results from, but is not the purpose of, carrying out an otherwise lawful activity. Under the PBO and 4(d) rule, all incidental take of the NLEB is exempted from the ESA's take prohibitions under certain conditions. However, incidental take is prohibited within one quarter mile from known hibernacula and winter roost, or within 150 feet from a known maternity roost tree during the months of June and July.

In consideration of known hibernacula, winter roosts, and maternity roost tree locations in South Carolina, this letter hereby offers blanket concurrence for a may affect, but is not likely to adversely affect determination for the NLEB if the proposed work occurs more than one quarter mile from known hibernacula, winter roosts, or is further than 150 feet from a known maternity roost trees. If an activity falls within one-quarter mile of hibernacula or winter roost or within 150 feet of a maternity roost tree additional consultation with the Service will be required. As a conservation measure for all projects it is recommended that all tree clearing activities be conducted during the NLEB inactive season of November 15th to March 31st of any given year.

The Service appreciates your cooperation in the protection of federally listed species and their habitats in South Carolina.

Sincerely,


Thomas D. McCoy
Field Supervisor

South Carolina Department of
Natural Resources



Robert H. Boyles, Jr.

Director

Emily C. Cope

Deputy Director for

Wildlife and Freshwater Fisheries

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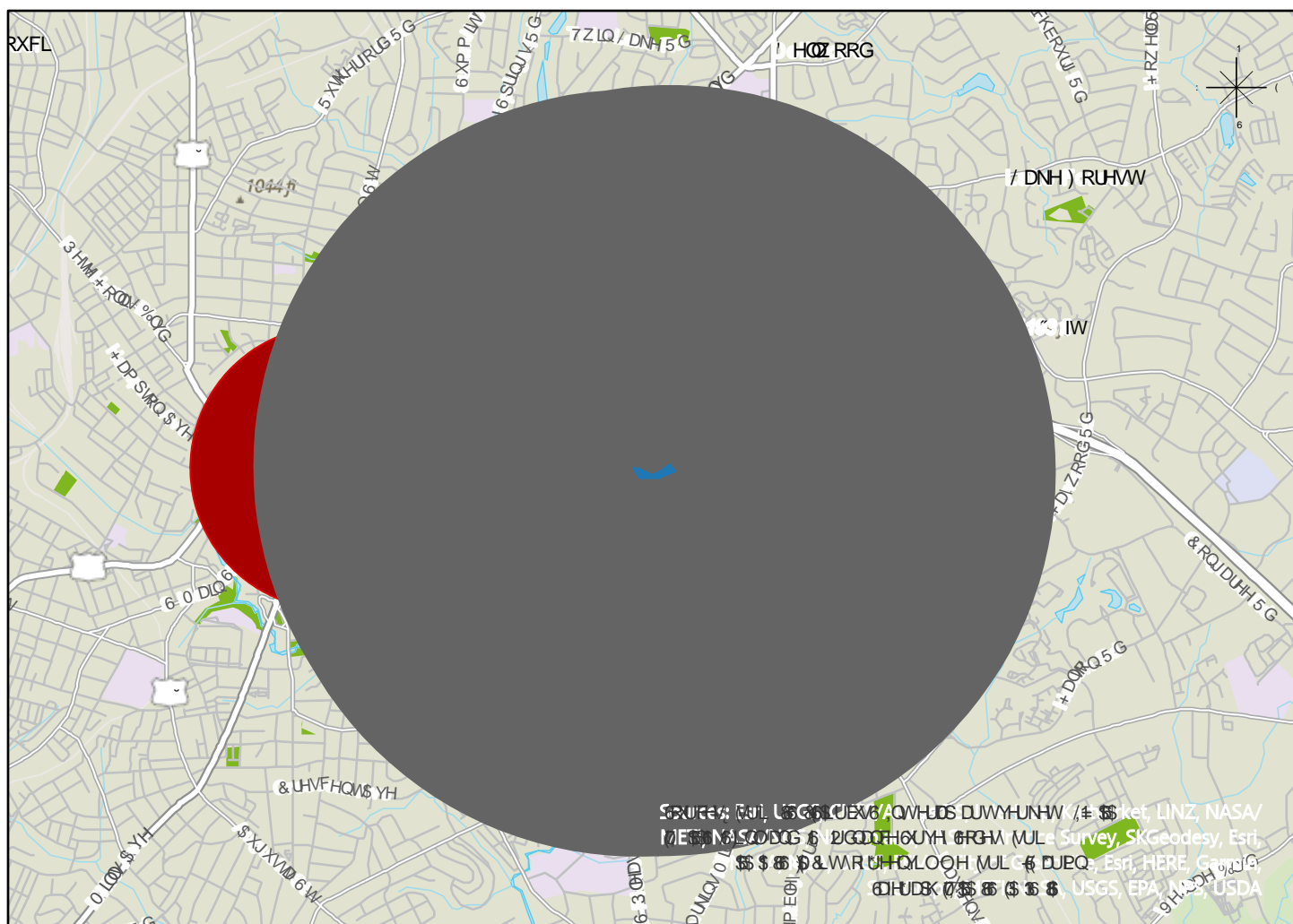
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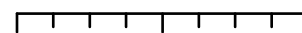
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DOHV

South Carolina Department of Natural Resources



Robert H. Boyles, Jr.

Director

Emily C. Cope

Deputy Director for

Wildlife and Freshwater Fisheries

This report includes the following items:

- A - A report for species which intersect the project area
- B - A report for species which intersect the buffer around the project area
- C - A list of best management practices relevant to species near to or within the project area
- D - A list of best management practices relevant to the chosen project type
- E - Instructions to submit new species observation records to the SC Natural Heritage Program

Please be advised:

The contents of this report, including all tables, maps, recommendations, and various other text, are produced as a direct result of the information a user provides at the time of submission. The SCDNR assumes that all information submitted by the user represents the project scope as proposed, and recommends that additional reports be requested should the scope deviate from how the project was initially represented to the SCDNR.

The technical comments outlined in this report are submitted to speak to the general impacts of the activities as described through inquiry by parties outside the South Carolina Department of Natural Resources. These technical comments are submitted as guidance to be considered and are not submitted as final agency comments that might be related to any unspecified local, state or federal permit, certification or license applications that may be needed by any applicant or their contractors, consultants or agents presently under review or not yet made available for public review. In accordance with its policy 600.01, Comments on Projects Under Department Review, the South Carolina Department of Natural Resources, reserves the right to comment on any permit, certification or license application that may be published by any regulatory agency which may incorporate, directly or by reference, these technical comments.

Interested parties are to understand that SCDNR may provide a final agency position to regulatory agencies if any local, state or federal permit, certification or license applications may be needed by any applicant or their contractors, consultants or agents. For further information regarding comments and input from SCDNR on your project, please contact our Office of Environmental Programs by emailing environmental@dnr.sc.gov or by visiting www.dnr.sc.gov/environmental. Pursuant to Section 7 of the Endangered Species Act, requests for formal letters of concurrence with regards to federally listed species should be directed to the USFWS.

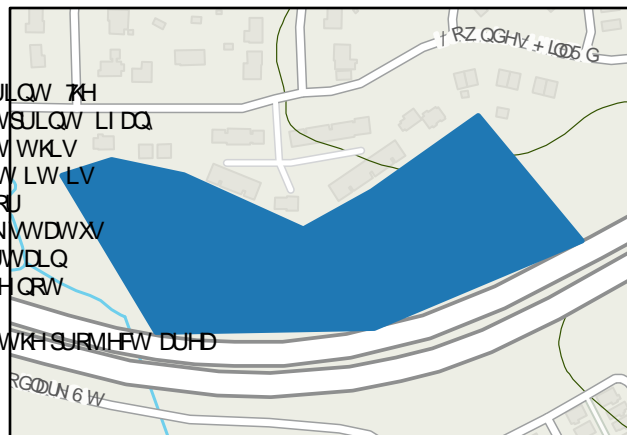
Should you have any questions or need more information, please do not hesitate to contact our office by email at speciesreview@dnr.sc.gov or by phone at 803-734-1396.

Sincerely,

A handwritten signature in black ink, appearing to read "Joe Lemeris, Jr.", is written over a horizontal line.

Joseph Lemeris, Jr.
Heritage Trust Program
SC Department of Natural Resources

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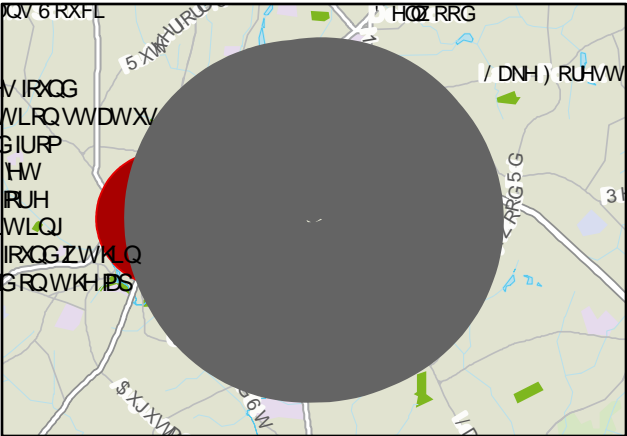


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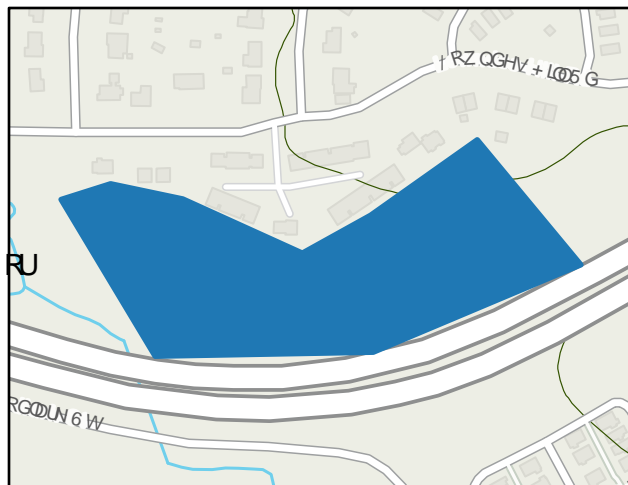
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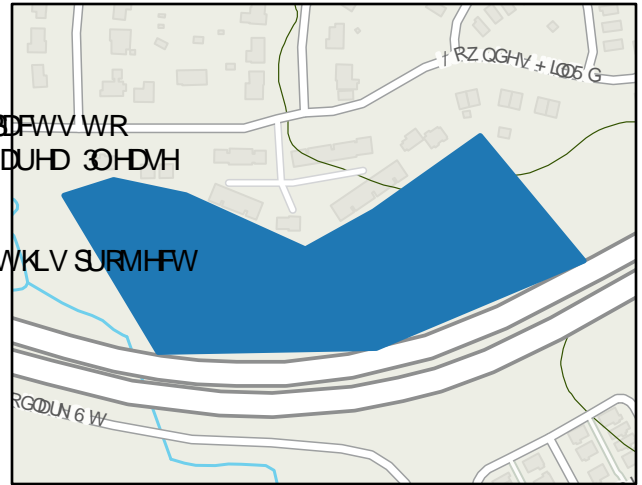
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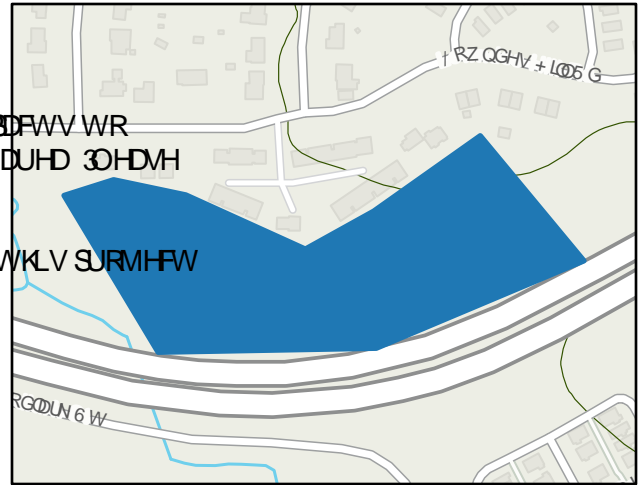
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DUHD



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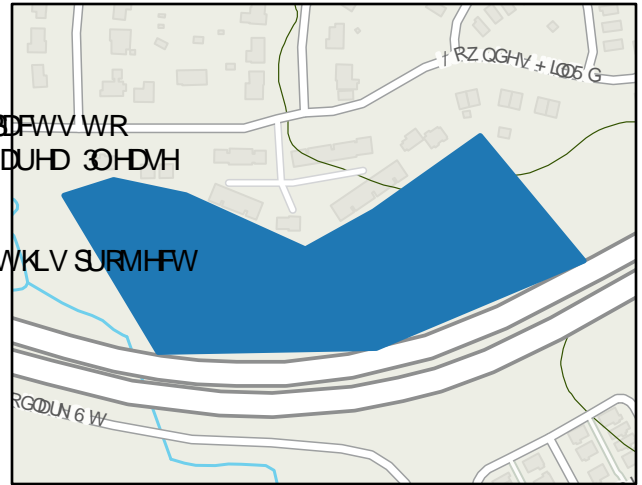
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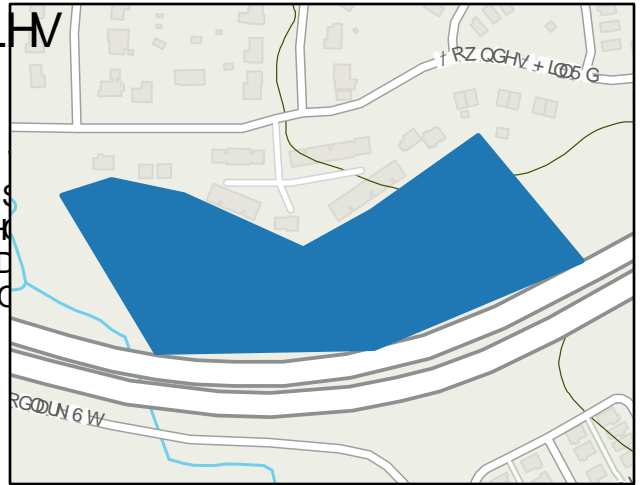


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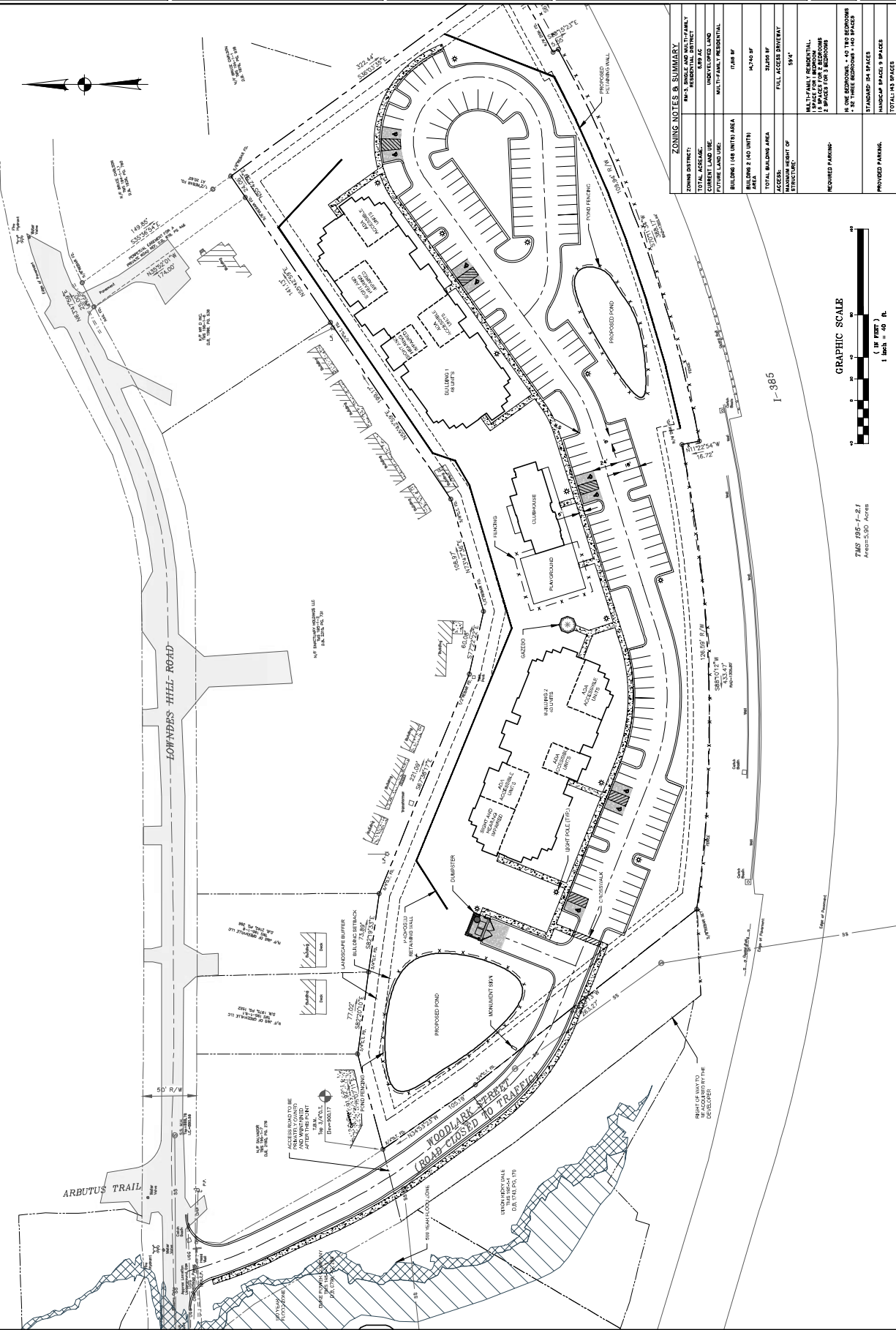
NO.	REVISIONS	BY	DATE

THOMAS HUTTON
1501 North Street • Suite 740
Columbia, SC 29201 • 803.451.6799
www.thomashutton.com

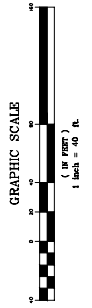
SCHAUMBER DEVELOPMENT, LLC
RILEY AT OVERBROOK
CITY OF GREENVILLE, SC

DATE: 12/22/2020
BY: J. SCHUMBER
CHECKED: J. SCHUMBER
SCALE: 1" = 40'

2



ZONING NOTES & SUMMARY	
ZONING DISTRICT:	M-1, SINGLE AND MULTI-FAMILY RESIDENTIAL
TOTAL ACRES:	5.89 AC
CURRENT LAND USE:	UNDEVELOPED LAND
FUTURE LAND USE:	MULTI-FAMILY RESIDENTIAL
BUILDING 1 (48 UNITS) AREA:	7,548 SF
BUILDING 2 (40 UNITS) AREA:	6,744 SF
TOTAL BUILDING AREA:	14,292 SF
ACCESS:	FULL ACCESS DRIVEWAY
STRUCTURE:	59'4"
REQUIRED PARKING:	MULTI-FAMILY RESIDENTIAL 1 SPACE PER UNIT 2 SPACES FOR 3 BEDROOMS 2 SPACES FOR 1 BEDROOM
PROVIDED PARKING:	40 ONE BEDROOM + 40 TWO BEDROOMS 2 X THREE BEDROOMS + 140 SPACES
TOTAL PARKING SPACES:	STANDARD 94 SPACES HANDICAP 8 SPACES



PLAN 105-4-2.1
Area=55.90 Acres

APPENDIX C

Site Photographs

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, SC

Photos Taken: December 10, 2021 ■ Terracon Project No. 86217332

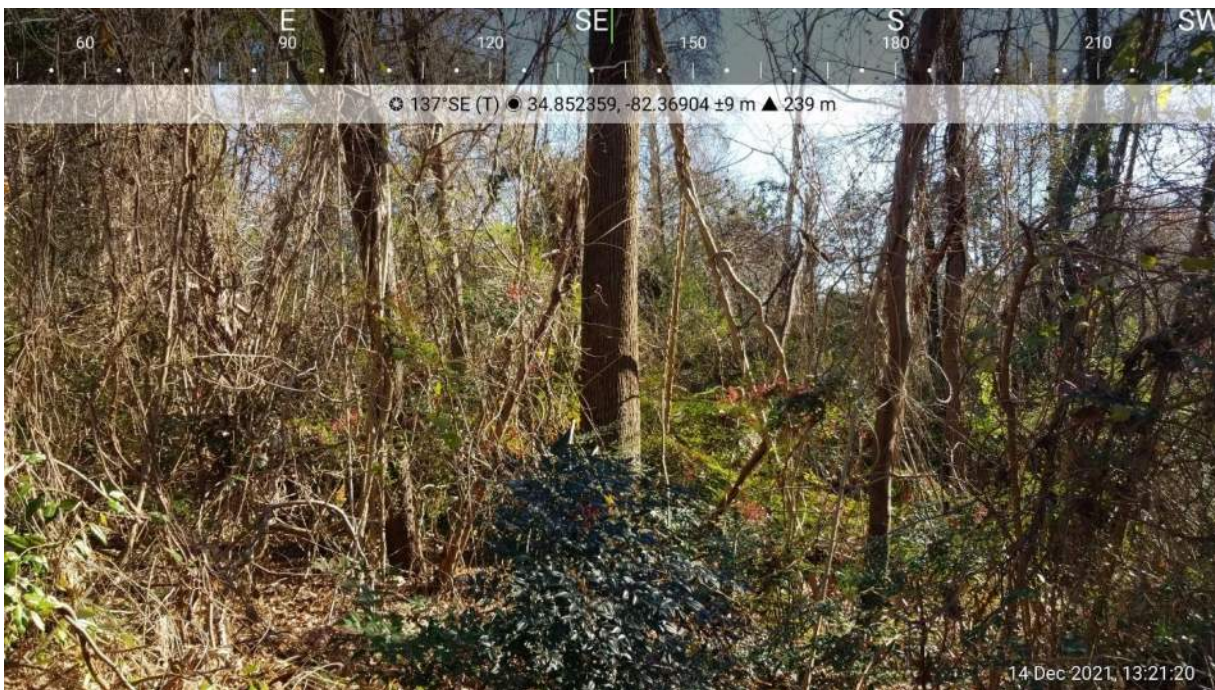


Photo 1 Typical view of the Mesic Mixed Hardwood Forest habitat on the site

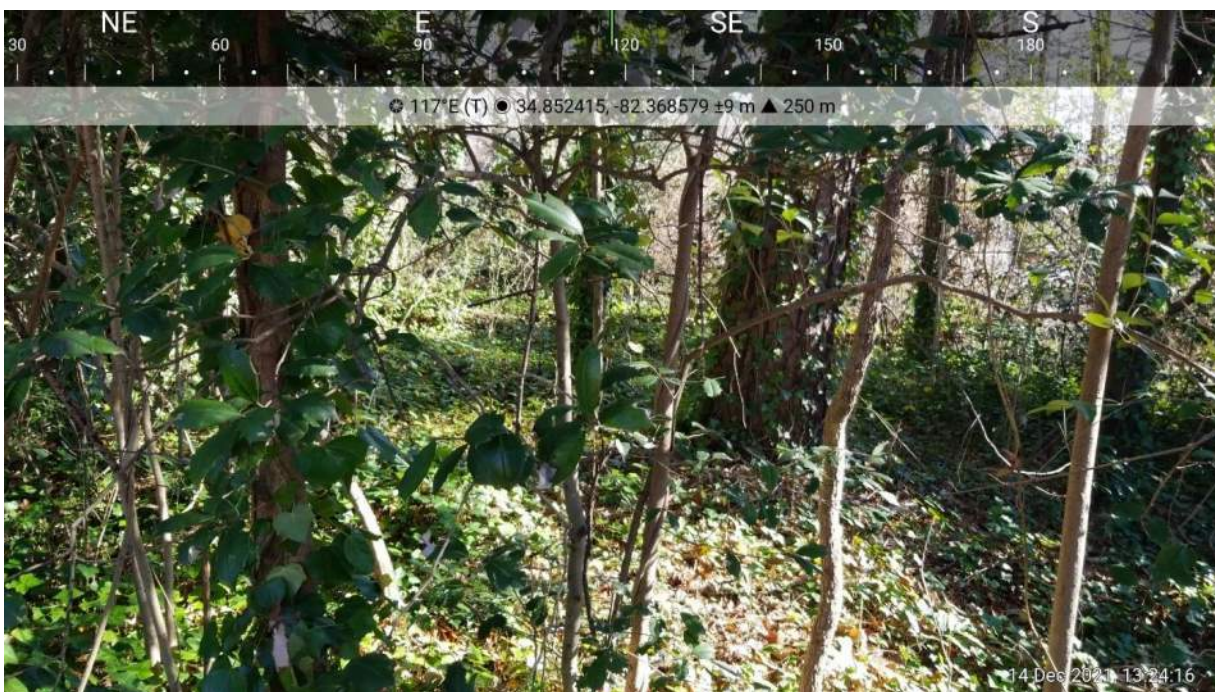


Photo 2 Typical view of the Mesic Mixed Hardwood Forest habitat on the site

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, SC

Photos Taken: December 10, 2021 ■ Terracon Project No. 86217332



Photo 3 Typical view of cleared paths within the Mesic Mixed Hardwood Forest habitat on the site

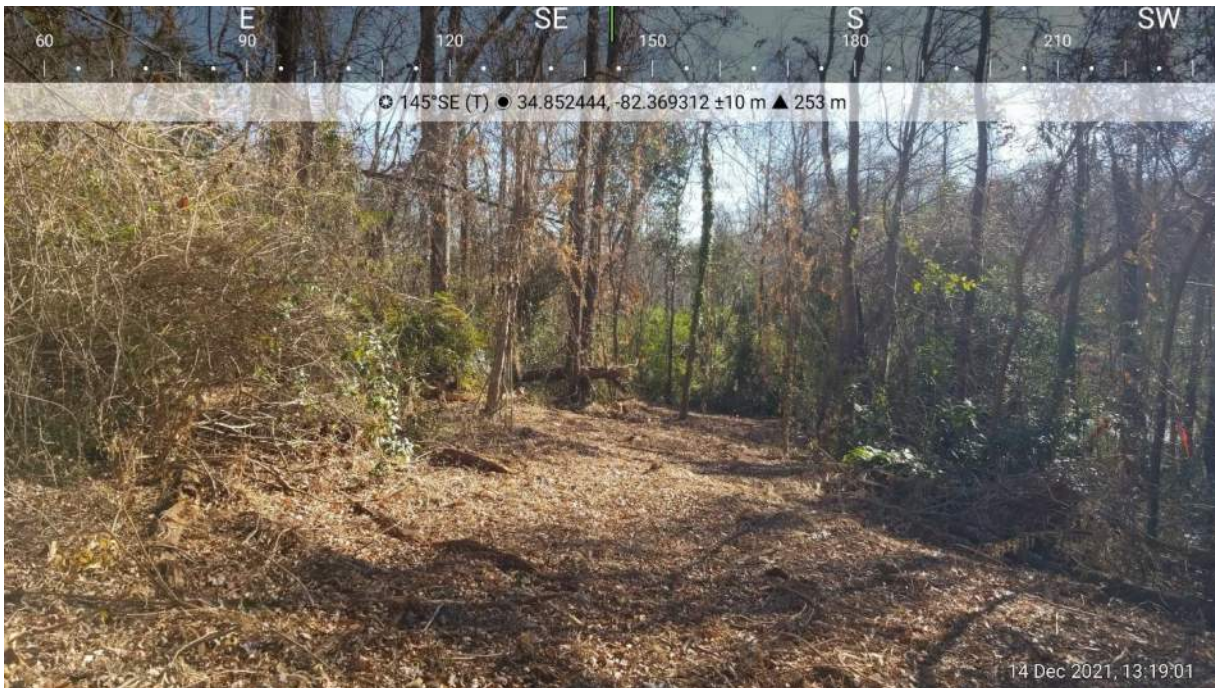


Photo 4 Typical view of cleared paths within the Mesic Mixed Hardwood Forest habitat on the site

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, SC

Photos Taken: December 10, 2021 ■ Terracon Project No. 86217332

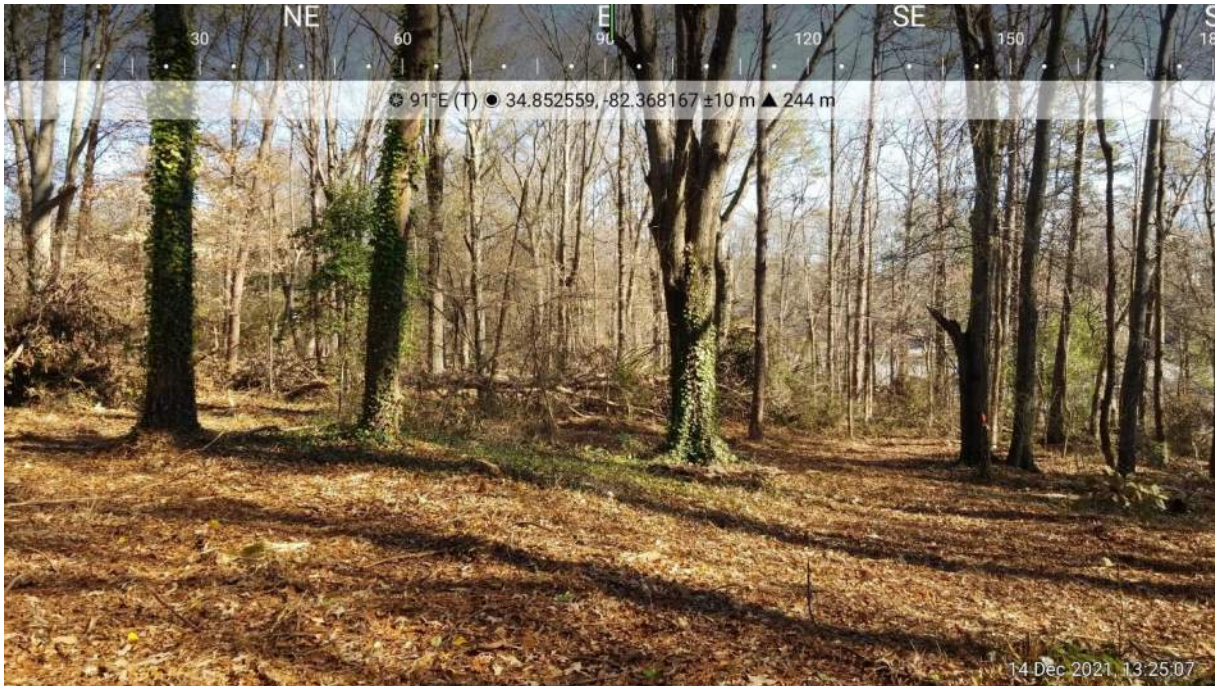


Photo 5 View of cleared understory in the east portion of the Mesic Mixed Hardwood Forest habitat on the site

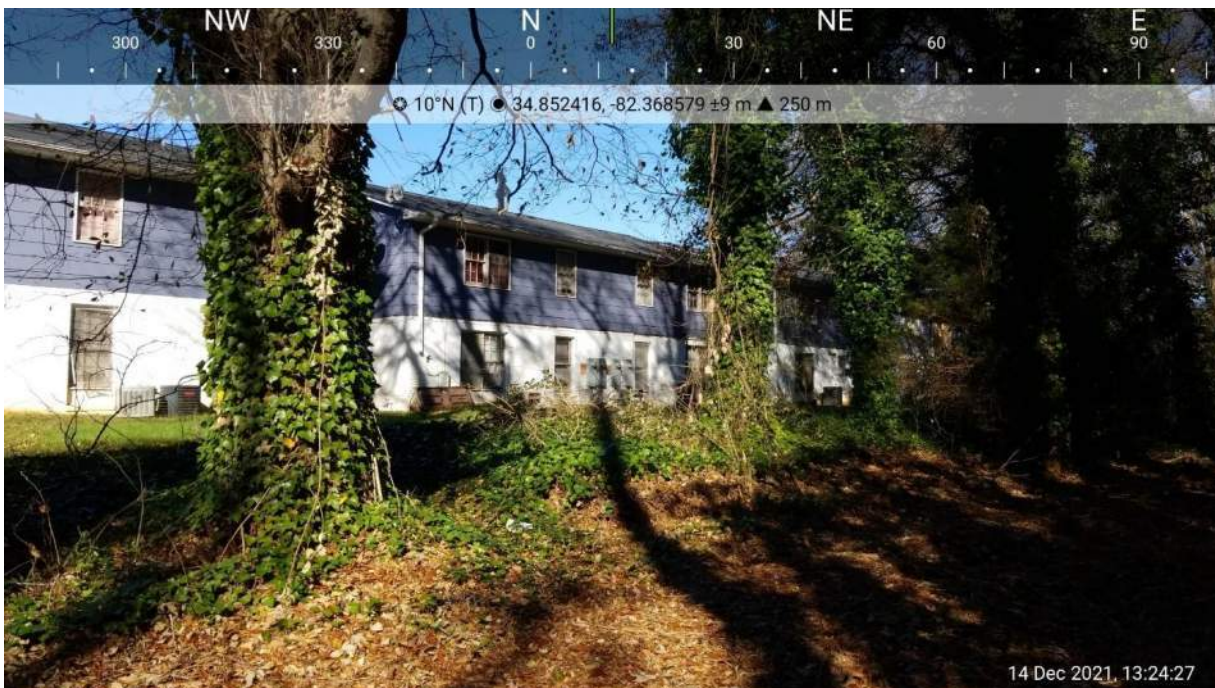


Photo 6 View of residential apartments to the north of the site

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, SC

Photos Taken: December 10, 2021 ■ Terracon Project No. 86217332

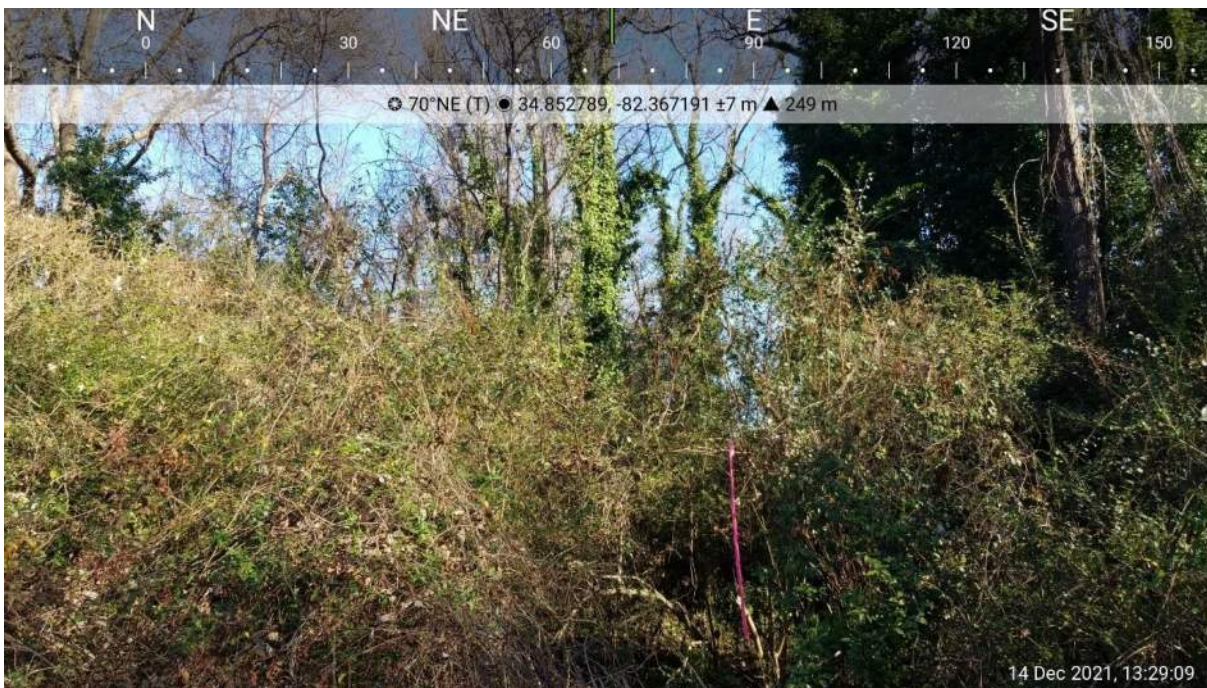


Photo 7 View of wooded area with thick understory to the east of the site

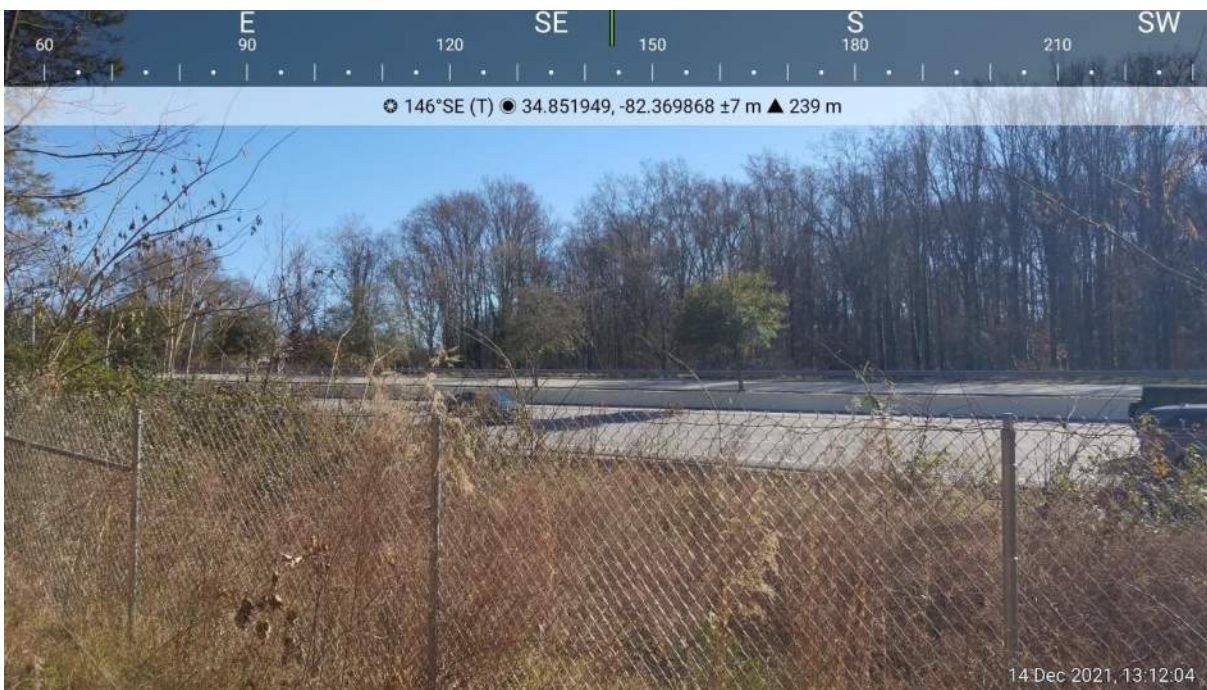


Photo 8 View of I-385 to the south of the site

Threatened & Endangered Species Survey

Lowndes Hill Road Development ■ Greenville, SC

Photos Taken: December 10, 2021 ■ Terracon Project No. 86217332

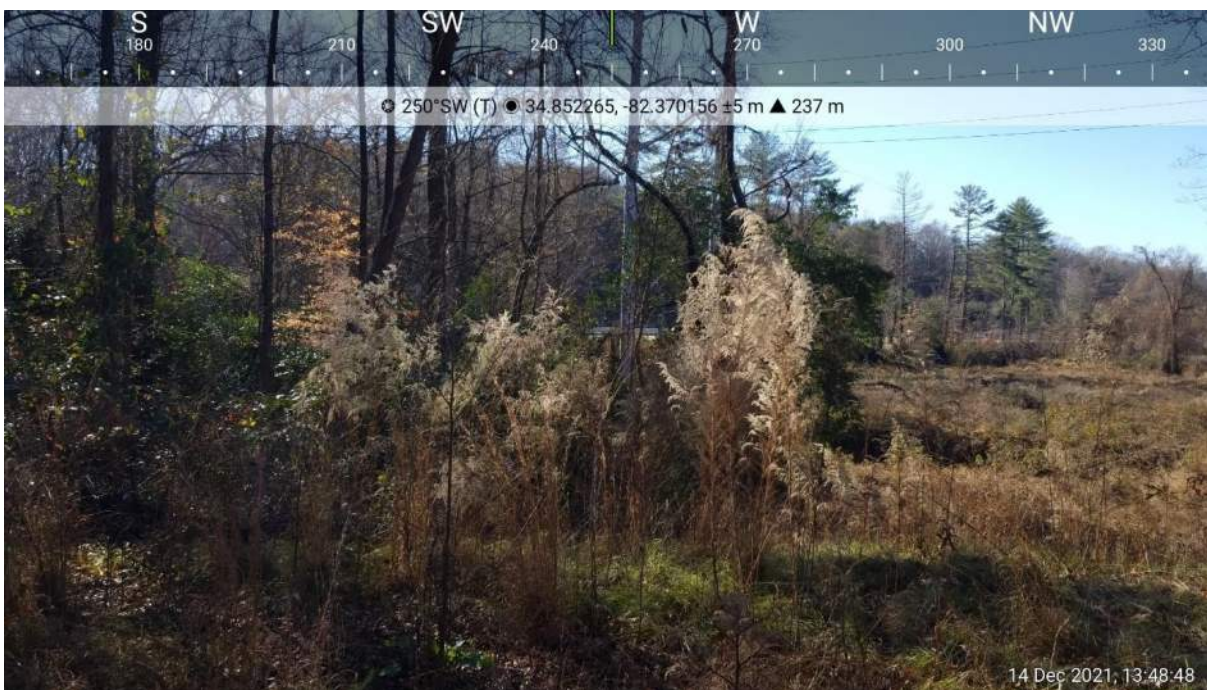


Photo 9 View of floodplain to the west of the site







S A&B





Hill Rd

ndes Hill Road



Hill Rd

ndes Hill Road



Hill Rd

ndes Hill Road



ndes Hill Rd



Rd































Neighborhood Meeting

Project Name: The Riley Overbrook / Road Name Change (Woodlark St.)

Location: Overbrook Gospel Chapel

Time of the meeting: 6:00 pm

Date: 12-6-2021

Representative holding meeting: Della Scott with Overbrook Neighborhood Association
Drew Schamber with Schamber Development

Name	Street Address	Email
1 W. Lloyd Walker	19 Arbutus Tr.	Wlloydwalker@hotmail.com
2 Esther Joseph	24 Arbutus Tr	
3 Jeremiah Joseph	24 Arbutus Tr	
4 Darryl Joseph	24 Arbutus Tr.	
5 Artha Rutland	206 S. Main St	aruthaford@greenvillesc.gov
6 Steve & Susan Skipwith	115 Greenridge Dr.	steveskipwith@yahoo.com
7 Solutions Recovery Center	520 Lowndes Hill Rd.	josephaciriacco@gmail.com
8 Gina Calvin	323 Buncombe St.	ginacalvin@realtor.com
9 Laura + Cody Buch	108 Brookside Ave	LGARDNER2@ELON.EDU
10 Elizabeth + Chris Gary	110 Lockwood Avenue	EGARY2010@gmail.com
11 Kari Braden	15 Greenridge Dr	Karibraden@gmail.com
12 Derrick Dawson	11 Greenridge Pl	Derrickdd27@gmail.com
13 Dick + Cindy Robinson	213 Brookside Ave	Robinsoncm49@gmail.com
14 Mario McCreter	18 Lockwood Ave	glantz, M. Greer (author), Crim.
15 Trent Dinger	1 Lockwood Ave	dingmenten@gmail.com
16 Charles Drant	502 Lowndes Hill Rd.	jannlund@gmail.com
17 Sherry Borden	502 Lowndes Hill Rd	sherryborden@gmail.com
18 Rennie Waldron	10 Cottage Hill Dr.	waldronrennie@gmail.com
19 Frances Cook	21 Spruce Street	cookfr@ad.com
20 WENDY RENTZ	311 OVERBROOK RD	WENDYHOLMAN77@GMAIL.COM
21 Gerald Farmer	310 Overbrook Rd., 29607	ghaynes49@gmail.com
22 Vernet Sue Biddle	36 Arbutus Tr	rbiddle@aol.net
23 Joel Armistead	19 Hillside Dr.	joelsparr@bellsouth.net
24 David C Mitchell	40 Lowndes Hill Rd	david.mitchell@usco.wv
25 Mike Koble	2 Arbutus Tr	KatieKeyes08@hotmail.com

Neighborhood Meeting

Project Name:

The Riley Overbrook / Road Name Change (Woodlark St)

Location:

Overbrook Gospel Chapel

Time of the meeting:

6:00 pm

Date:

12-6-2021

Representative holding meeting:

Della Scott with Overbrook Neighborhood Association
Drew Schamber with Schamber Development

Name

Street Address

Email

1	Loris Atkins	138 Oakl Dr.	horticulturalist@gmail.com
2	ROHIE ATKINS	571 Whites Hill Rd	KATKINS29@gmail.com
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Sign In Sheet

Gene Berger overbrook Circle

Shannon Henley Woodlark St. Gsxr1000she@gmail.com

Esther Joseph 24 Arbutus Trail Greenville SC 29607

W. Lloyd Walker 19 Arbutus Tr. Greenville.

Notes from neighborhood meeting on December 6, 2021, 6:00 pm at Overbrook Gospel Chapel:

The below notes are notes by Drew Schaumber based on his recollection of the meeting and the hand notes he took while in the meeting. Some commentary and information below is being provided as follow up to questions that Mr. Schaumber was unable to address at the meeting. Mr. Schaumber has noted this where applicable.

1. Traffic – Neighborhood Association stated residents are concerned with traffic on Lowndes Hill Road.

- Areas of concern raised were the number of cars, speed of the cars and lack of sidewalks.
- Many comments made by attendees about people walking down the road and how dangerous it is due to lack of sidewalks.
- Comments about how fast cars drive along Lowndes Hill Rd. “There is a hill in this area, and cars come down the hill fast.”
- A comment was made about tying into the Swamp Rabbit Trail? The developer certainly would support this idea, but not sure if it’s possible and is not something the developer can do unilaterally.
- Neighbors ask about future residents at our community and what their typical mode of transportation is. LeeAnn Price with Douglas Development advised that within each household typically one or two people are working with at least 1 car per family.
- Neighbors asked if a Traffic Study had been done. Mr. Schaumber advised that a traffic study had been engaged but the results were not in at this time.
- Mr. Schaumber commented that Schaumber and Douglas would be long-term owners in this development and that our residents would have the same concerns and issues as it relates to traffic and sidewalks and that we would be aligned with the Overbrook community in working with the City on Lowndes Hill.

2. Affordable Housing – Neighbor questions about affordable housing at this site and within this community.

- Why was this site picked for this type of development? Mr. Schaumber answered that the site was actively listed for sale, the site is zoned for the proposed use (zoned up to 120 units vs. 88 proposed), the City of Greenville housing needs are consistent with the proposed development, the location of this site is close proximity to Greenville’s job market, the acreage of land needed for the proposed development was sufficient.
- What is required of the tenants before being approved for residency? LeeAnn Price answer: Tenants are fully vetted. Proof of income, criminal history, credit check, rental history, etc.
- Can a resident’s income increase while they are living at the community – Mr. Schaumber and LeeAnn Price addressed this question, Tenants can exceed the income limit after initial qualification. This is intended to remove disincentives for upward financial mobility, etc. Thorough compliance checks are made to make sure residents moving in qualify with property’s income limits.
- What are the funding sources and was there a public hearing for the funding – Mr. Schaumber answered that the funding was State Tax Credits, Federal Tax Credits through the 9% program administered by South Carolina State Housing Finance and

Development Authority (SCSHFDA), Greenville Housing Fund permanent loan and a conventional permanent mortgage.

- Regarding public hearings on funding issued by state housing? Mr. Schaumber did not believe there was a public hearing as to the funding but that he would confirm with SCSHFDA. Mr. Schaumber has since confirmed with SCSHFDA that the Authority does public hearings for the Qualified Allocation Plan (QAP), but there are no specific public hearings on specific developments for the 9% program.
- What does the crime report look like in similar affordable housing developments in the Greenville area? LeeAnn Price answered that police/crime reports should be public record and can be readily searched online for a street/zip code/neighborhood area. Attached to end of these notes are crime maps/reports for 2021 at four of our Greenville communities close to the Overbrook neighborhood. These include Laurel Oaks, Magnolia Place, Azalea Place and Brookside Gardens for a total of 223 units. Through all of 2021 (1/1/2021 – 12/15/2021) there appear to only be 4 reports at our locations. Two of them reference addresses adjacent our communities and one was a car break-in where a resident was the victim of the break-in. It appears one of the four was something from a resident or guest of a resident.

3. Design – Discussions about the proposed design

- Neighbors expressed concern about the retaining walls at the site. Mr. Schaumber advised that retaining walls were necessary and permissible per construction. There are existing retaining walls along 385 corridor due to nature of topo.
- Neighbors expressed concern about how high the building would be over I-385, stating that I-385 is a gateway into downtown Greenville. Mark DeSouza (civil engineer) noted there is a 25' landscape buffer around perimeter of property, including along 385.
- Neighbor expressed concern over the proposed design and that the architectural rendering was "awful" and looks like "something built in Simpsonville". Neighbor asked why we didn't design it "with shipping containers or something better looking". Mr. Schaumber advised that we were designing the building to meet the multifamily design standards for Greenville and SCSHFDA. Mr. Schaumber could not comment on modular shipping containers, but he does not believe this type of construction would be accepted by SCSHFDA and/or City of Greenville.
- Neighbors raised concern on the flood plain to the west of Woodlark ROW. Neighbors asked what would be done at "kudzu alley" also west of Woodlark ROW. Mr. Schaumber advised that those areas are outside of the proposed development and thus outside our control. The current design for development and road does not impact any flood plain.
- Neighbor asked if we had done an endangered species study, Mr. Schaumber advised we had not. Based on the comment we have engaged a third party firm to do a study.

- Neighbors wanted to know if we were replacing the trees that would be taken down for the development. Mr. Schaumber advised we will be replacing trees in accordance in the tree ordinance of the City of Greenville. A tree study is being completed in accordance with the City of Greenville requirements.
 - Question was asked about noise mitigation from 385 for the community. Since the meeting, Mr. Schaumber has since confirmed the building design incorporates sound attenuation into the structure to dampen the noise from 385.
4. **Other communities** – A neighbor asked if we had other apartment communities in the area. Mr. Schaumber advised the neighbor that we have Brookside Gardens off Wade Hampton and three properties on Rutherford Road. The addresses for these communities are:
- Brookside Gardens: 31 Brookside Circle, Greenville, SC 29609
 - Azalea Place: 663 Rutherford Rd, Greenville, SC 29609
 - Laurel Oaks: 667 Rutherford Rd, Greenville, SC 29609
 - Magnolia Place: 669 Rutherford Rd, Greenville, SC 29609

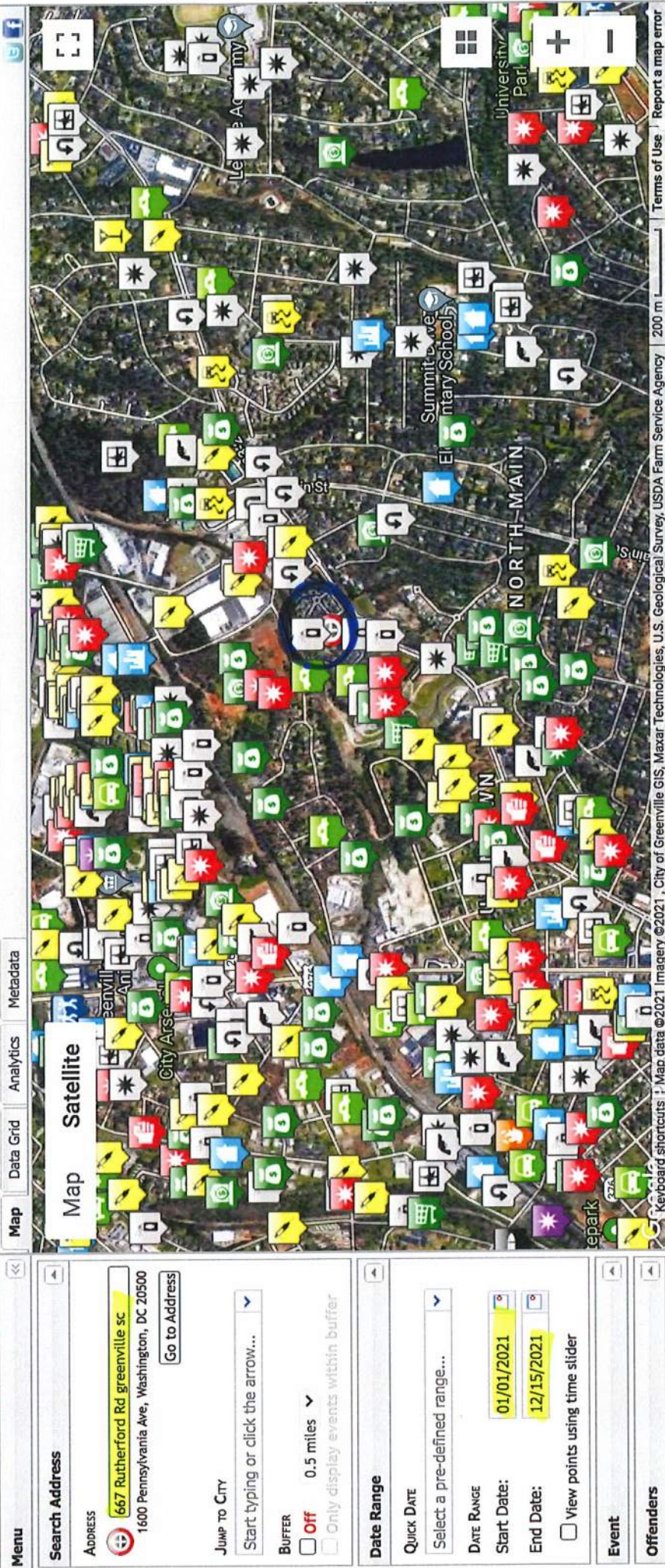
Laurel Oaks, Magnolia Place, Azalea Place - Rutherford Rd



Community Crime Map


Sign up for crime alerts

0 Clear Filters



- 1: car Break-in 6/18/2021. A residents' car was broken into.
- 2: Malicious Damage 6/11/2021. Do not have details at this time.

Brookside Gardens / Wade Hampton area



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Community Crime Map

Sign up for crime alerts 0 Clear Filters

Menu

Search Address

Address

31 brookside circle greenville sc

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Go to Address

Jump to City

Start typing or click the arrow...

Buffer

☐ Off

0.5 miles

☐ Only display events within buffer

Date Range

Quick Date

Select a pre-defined range...

Date Range

Start Date: 01/01/2021

End Date: 12/15/2021

☐ View points using time slider

Event

Offenders

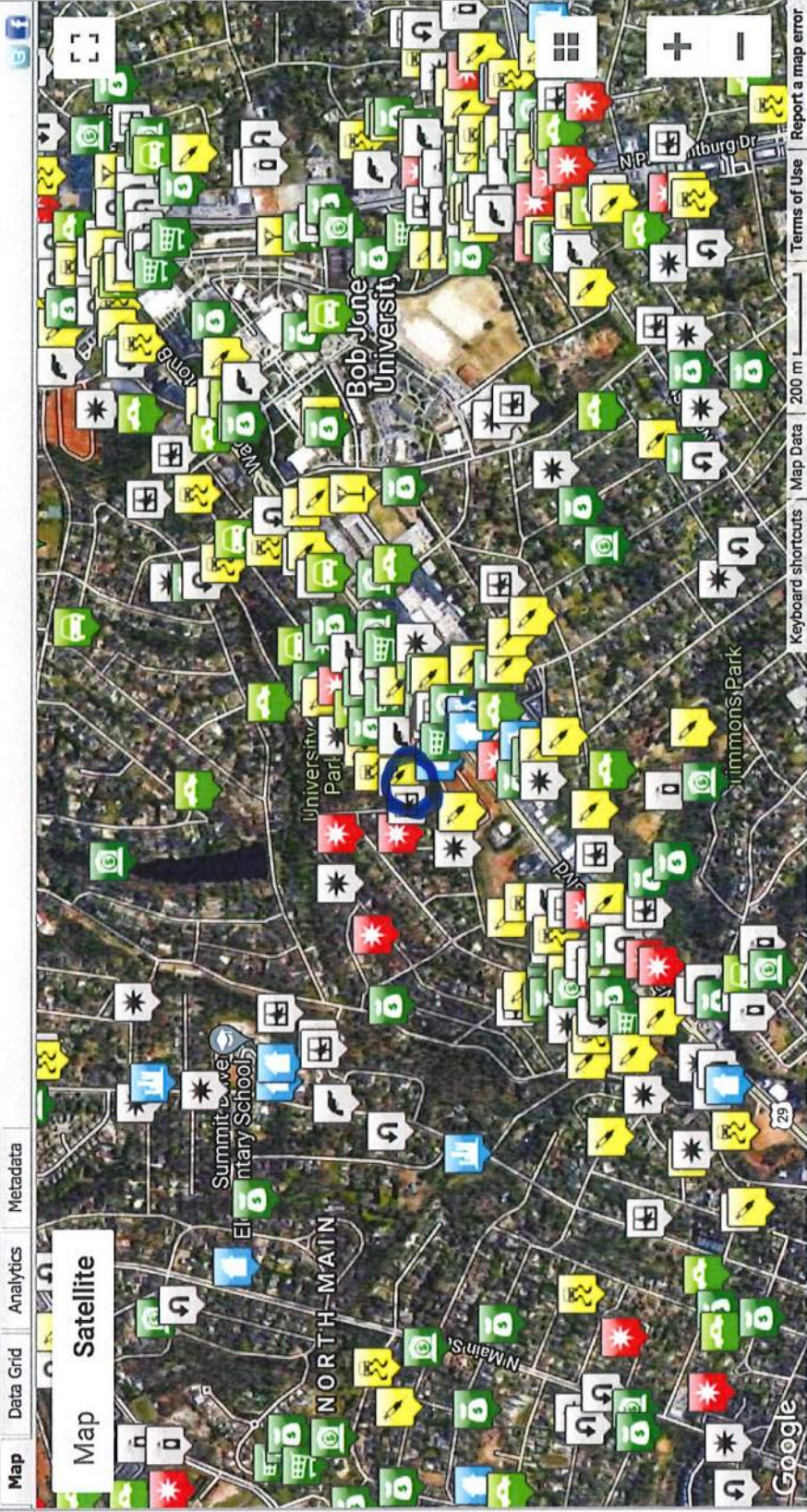
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Keyboard shortcuts

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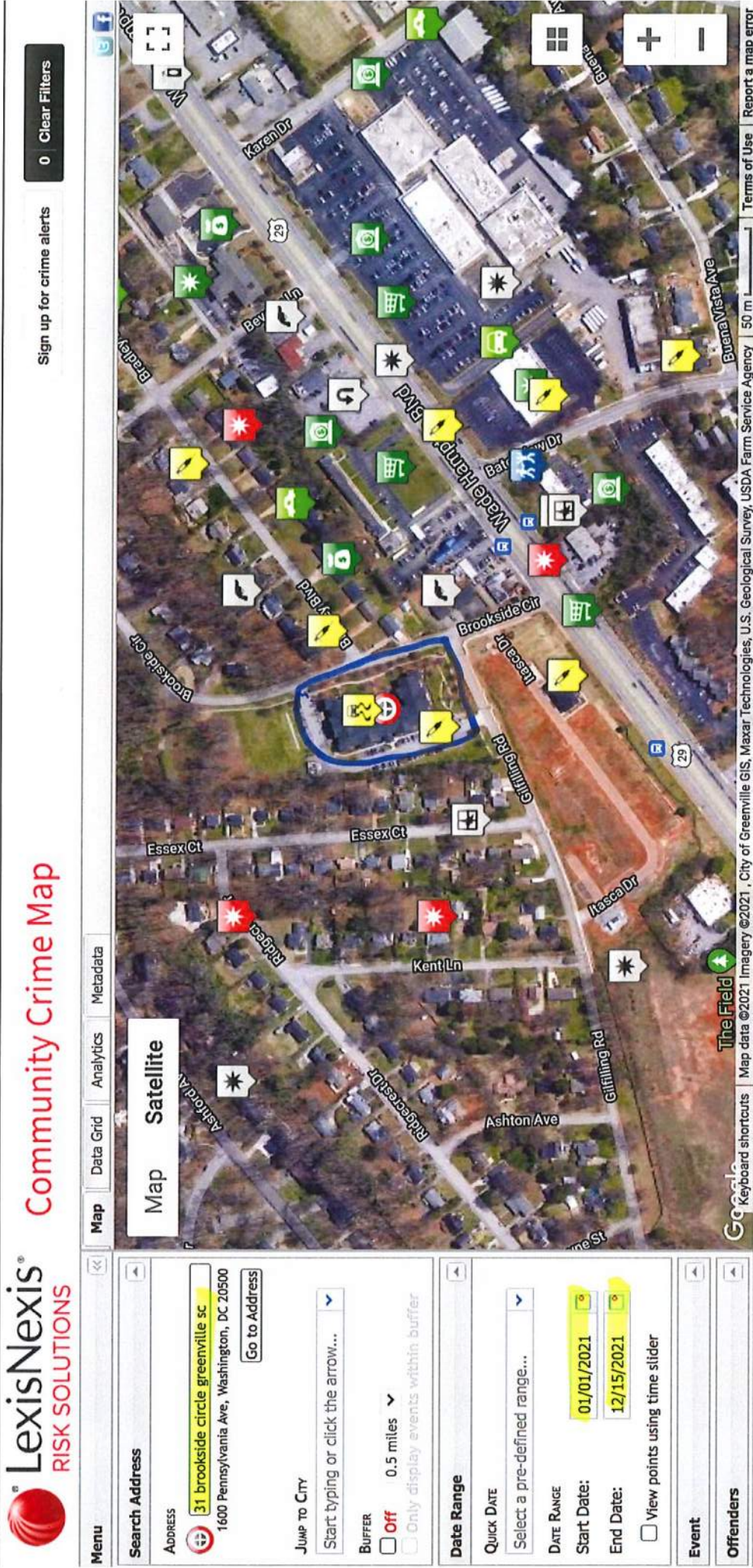
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Brookside Gardens 2021 Crime



2 items noted:

- 1: DUI with address of Wade Hampton Blvd (not our property)
- 2: Drug possession with address of Essex Ct. (not our property)